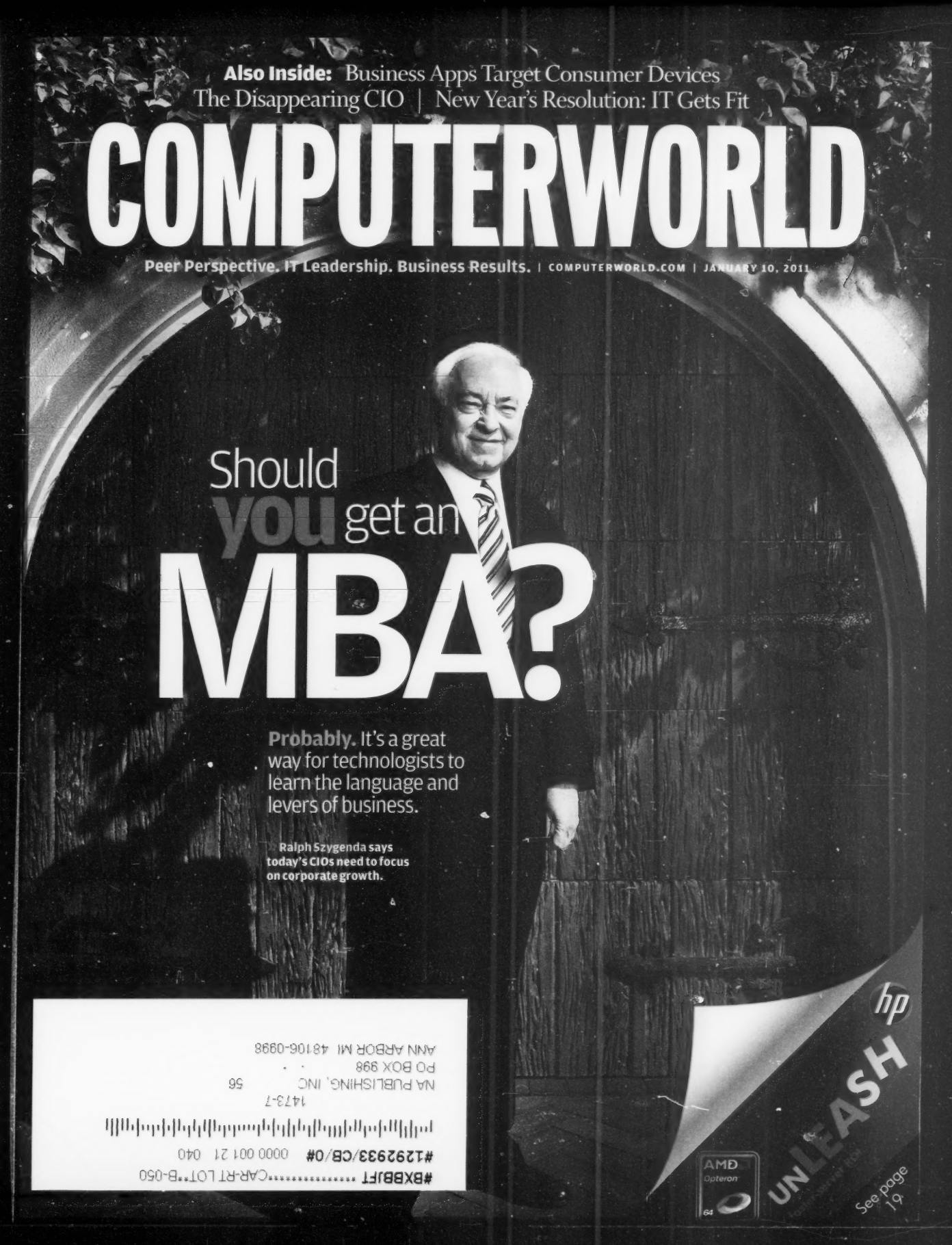
Also Inside: Business Apps Target Consumer Devices
The Disappearing CIO | New Year's Resolution: IT Gets Fit

COMPUTERWORLD

Peer Perspective. IT Leadership. Business Results. | COMPUTERWORLD.COM | JANUARY 10, 2011



Should you get an MBA?

Probably. It's a great way for technologists to learn the language and levers of business.

Ralph Szygenda says today's CIOs need to focus on corporate growth.

#BXBBJFT ********CAR-RT LOT**B-050
#1292933/CB/0# 0000 001 21 040
1473-7
NA PUBLISHING, INC 56
PO BOX 998
ANN ARBOR MI 48106-0998

hp
UNLEASH
AMD Opteron 64
See page 19

Building the engines of a Smarter Planet:

How midsize businesses can get ahead by backing up.

As the engines of a Smarter Planet, midsize companies are faced with exponential data growth in their business operations. Losing information isn't an option. Yet with tighter budgets and fewer resources, midsize companies find it difficult to maintain a reliable in-house data backup and recovery system. That's why IBM and its Business Partners are using the power of the cloud to offer enterprise-level data protection designed to reduce your risk and meet your budget. Introducing cloud-based backup from IBM. A smarter infrastructure should help ensure that your data is continuously backed up in one of IBM's 150 data centers worldwide—so the moment files are saved, they're protected. Anywhere. Anytime. Just go on with your business, and IBM will take care of the rest. Here's how it works:

1. **Lower your total cost of ownership by up to 40%.** Work with an IBM Business Partner to compare your in-house system to a scalable IBM-managed cloud service that avoids capital expenditures.

2. **Enjoy security-rich, automated backup.** Data is backed up the moment files are saved.

3. **Get what you need, when you need it.** In the cloud, your data is readily available so you can make smarter business decisions and increase productivity.

4. **Free up valuable resources.** 95% of your savings are derived from focusing IT staff on more strategic initiatives instead of routine maintenance, as well as reducing backup hardware, software, and tape media.

IBM Information Protection Services managed backup cloud is designed and priced with midsize companies in mind. Services start at

$2.95 per 5 GB seat per month.*

Try cloud-based backup from IBM free for 60 days.

Midsize businesses are the engines of a Smarter Planet.

To learn more about services like Information Protection, connect with a Business Partner, or get set up now, call **1-877-IBM-ACCESS** or visit **ibm.com**/engines/informationprotection

IBM

*Prices subject to change and valid in the U.S. only. Actual costs will vary depending on individual customer configurations and environment. IBM, the IBM logo, ibm.com, Smarter Planet and the planet icon are trademarks of International Business Machines Corp, registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at www.ibm.com/legal/copytrade.shtml. © International Business Machines Corporation 2010.

COMPUTERWORLD

P.O. Box 9171
492 Old Connecticut Path
Framingham, MA 01701
508-879-0700
Computerworld.com

» **EDITORIAL**

Editor in Chief
Scot Finnie

Executive Editors
Mitch Betts, Julia King (events)

Managing Editors
Michele Lee DeFilippo (production), Sharon Machlis (online), Ken Mingis (news)

Director of Blogs
Joyce Carpenter

Art Director
April Montgomery

Technologies Editor
Johanna Ambrosio

Features Editors
Valerie Potter, Ellen Fanning (special reports), Barbara Krasnoff (reviews)

News Editors
Mike Bucken, Marian Prokop

Senior Editor
Mike Barton

National Correspondents
Julia King, Robert L. Mitchell

Reporters
Sharon Gaudin, Matt Hamblen, Gregg Keizer, Lucas Mearian, Patrick Thibodeau, Jaikumar Vijayan

Assistant Managing Editor
Bob Rawson (production)

Editorial Project Manager
Mari Keefe

Associate Online Editor
Ken Gagné

Office Manager
Linda Gorgone

Contributing Editors
Jamie Eckle, Preston Gralla, Tracy Mayor

» **CONTACTS**

Phone numbers, e-mail addresses and reporters' beats are available online at *Computerworld.com* (see Contacts link at the bottom of the home page).

Letters to the Editor
Send to letters@computerworld.com. Include an address and phone number for immediate verification. Letters will be edited for brevity and clarity.

News tips
newstips@computerworld.com

Subscriptions and back issues
(888) 559-7327, cw@omeda.com

Reprints/permissions
The YGS Group, 800-501-9571, ext. 180, computerworld@theygsgroup.com

THIS ISSUE | 01.10.2011 [VOL. 45, NO. 01 $5/COPY]

28 IT GETS FIT

Damon Giangrande, Jose Zabala and Brian Johnson take a breather after a pickup basketball game in the JM Family Enterprises parking area.

COVER STORY

Should You Get an MBA?

20 It takes a monumental commitment, both financially and personally, but earning an MBA could be the fastest ticket to business proficiency.

IT Gets Fit

28 Many employers now offer fitness and wellness programs, but support from top leaders is needed to ensure that IT workers feel comfortable taking advantage of those opportunities.

Salesmanship Pays Off for IT

31 A Pepsi bottler's IT team engages in a bit of salesmanship to persuade users to embrace unified communications.

HEADS UP | **2** Netflix IT pros blog about the company's **cloud computing efforts.** | IT vendors enter the **building controls** market. | **4 Tablets** gain ground at work. | Schools neglect **computer science.**

NEWS ANALYSIS
6 Software makers offer business apps for **consumer devices.** | **8** Calls to the **help desk** are still on the rise.

OPINIONS | **18 Bart Perkins** sees good reason to preserve the enterprise CIO role. | **34 Thornton A. May** wonders why many IT execs never imagine being in charge.

40 Scot Finnie says 2011 will be better than 2010, both for IT shops and IT products.

DEPARTMENTS
12 The Grill: Healthcare CIO Harry Lukens. | **33 Security Manager's Journal** | **36 Career Watch** | **39 Shark Tank**

Fresh Insights
New Trends
Great Ideas

Heads Up

CLOUD COMPUTING

Netflix Reveals Challenges in the Cloud

TECHNOLOGY MANAGERS at video distributor Netflix Inc., which last year took a big plunge into the public cloud, have started a remarkably candid blog about their experiences with mission-critical cloud computing.

Netflix redeployed most of its customer-facing applications — including its Web site, search, recommendations, video streaming and huge data stores — to Amazon.com Inc.'s cloud service. It's been a "Herculean effort," wrote John Ciancutti, one of three Netflix vice presidents of engineering, in The Netflix Tech Blog (*http://techblog.netflix.com*).

One reason for moving to the cloud was the need to completely rethink IT strategy as the company's business model moved from mailing DVDs to streaming video over the Internet, he said. It made sense to have Amazon handle data center infrastructure so that Netflix engineers could focus on innovation and customer experience.

But Ciancutti acknowledged some big challenges. "There were some dark days as we struggled with the sheer size of the task we'd taken on, and some of the differences between how [Amazon's cloud] operates vs. our own data centers," he wrote.

For example, Netflix must cope with hardware failures and slow response times in the cloud, where IT resources are shared with other tenants. "Co-tenancy is hard," Ciancutti said. To address that problem, Netflix developed a software architecture that it calls "Rambo," in which each application can succeed even if related systems fail, he said.

– *Mitch Betts*

GET BREAKING NEWS AT COMPUTERWORLD.COM

GREEN TECH

Industry Titans Battle to Supply Smart Buildings

The next wave of green IT will be improving the energy efficiency of office buildings, and it will set up intense competition among the incumbent makers of building-control systems and IT vendors such as IBM, Google, Cisco and Microsoft, according to a report Lux Research Inc. released last month.

In hopes of capturing the "smart buildings" market, the IT vendors will be battling building-control giants like Johnson Controls, Siemens, Honeywell and Schneider Electric, as well as utilities, appliance makers, lighting suppliers and dozens of start-ups, the report said.

Lux Research analyst Michael LoCascio said the building technology market will see a boom-and-bust cycle similar to that of the dot-com market in the late 1990s. The report predicted a "gold rush" of entrepreneurs and a frenzy of acquisitions, followed by a shakeout in 2015.

The market research firm said that "conventional buildings unnecessarily consume a lot of energy as lighting, climate control and ventilation are all powered with little or no regard for the changing number of occupants, or the surrounding environmental or ambient conditions." Smarter controls and sensors can reduce overall building energy consumption by 20% – or up to 60% for specific functions such as lighting, according to the report.

– MITCH BETTS

Advanced technology for breakthrough applications

Create applications that connect with other applications.

Developers who embed InterSystems **Ensemble**® software can offer breakthrough applications.

This unique platform will enable you to create a new class of applications that have embedded integration capability. Your products will have a major competitive advantage because they'll be interoperable with the applications your prospects and customers are using.

In addition, Ensemble makes it easier to enhance your existing products. You can extend them with valuable new features such as adaptable workflow, browser-based user interfaces, dashboards and rules-based business processes – *without rewriting your code.*

The Ensemble platform is powered by InterSystems Caché®, the world's fastest and most scalable object database. With its advanced object technology, Caché makes Ensemble an ideal platform for Java and .NET programmers.

For over 30 years, we've provided advanced software technologies for breakthrough applications.

InterSystems

Learn more about Ensemble at **InterSystems.com/Advanced1A**

© 2011 InterSystems Corporation. All rights reserved. InterSystems Ensemble and InterSystems Caché are registered trademarks of InterSystems Corporation. 1-11 Adv1 CoWo

BETWEEN THE LINES
By John Klossner

RESEARCH RECAP

Businesses Plan a Tablet Buying Spree

THE NUMBER of corporations arming workers with tablets will double early this year, a research firm said last month, citing its recent survey of 1,641 IT buyers.

The November poll by ChangeWave Research showed that Apple Inc.'s iPad will remain the dominant workplace tablet even as historically strong enterprise players like Hewlett-Packard Co. enter the market.

Calling the demand for tablets "explosive," ChangeWave reported that 14% of the businesses polled said they are planning to buy tablets for employees in the first quarter of 2011. About 7% of all companies polled by ChangeWave said that they currently provide some workers with tablets. That represents a one-point increase from the percentage of respondents who gave that answer in a similar ChangeWave poll in August 2010.

"What's striking about the survey results is the intensity of the leap in demand [among enterprises]. It was much more than what we were expecting," said Paul Carton, head of research at ChangeWave in Rockville, Md.

Apple's iPad will continue to dominate the business tablet market, overshadowing HP's Slate, Dell Inc.'s Streak and the forthcoming PlayBook from Research In Motion Ltd. Of the companies planning to purchase tablets in the first three months of 2011, 78% cited the iPad as their choice. Dell, HP and RIM were essentially tied for second place, with Dell and RIM getting 9% of the votes and HP 8%.

"Apple has a huge lead over everyone," Carton said. "It's clearly the gold standard."

The poll found that the most popular work-related uses of tablets are accessing the Internet and checking e-mail, but Carton added that the results showed a healthy gain in the use of tablets in place of traditional laptops.

The ChangeWave research indicated that the iPad's overall satisfaction rating was 97%, surpassing the satisfaction ratings for HP's tablet (74%) and Dell's tablet (69%).

– *Gregg Keizer*

Micro Burst

SECURITY MONITOR

The most common user password on Gawker's hacked Web sites was

123456

according to a study of the exposed accounts.

TECH EDUCATION

K-12 Schools Lack Computer Science Classes

Computer technology may drive the U.S. economy, but computer science education is absent in most American K-12 classrooms, according to a report by the Association for Computing Machinery and the Computer Science Teachers Association.

"Some states and some schools are offering some really excellent courses. But overall, the picture is pretty bleak," said report co-author Mark Stehlik, assistant dean at Carnegie Mellon University's School of Computer Science, last month.

The number of secondary schools offering introductory computer science courses dropped 17% from 2005 to 2009, and the number offering Advanced Placement computer science courses dropped 35% in that time period, the study found.

Federal initiatives such as No Child Left Behind and programs designed to boost science and math education have had the unintended consequence of undermining computer science programs, the report noted. Schools have responded to those initiatives by focusing on traditional science and math courses that are covered by achievement tests or are core requirements for high school graduation. Only nine states count computer science credits toward graduation requirements.

– MITCH BETTS

YOUR REMOTE SUPPORT SILVER BULLET.

You've heard the call for help and are ready to ride – all you need is the best tool to let your skills shine. With the simple yet powerful technology of GoToAssist® Express™, you'll connect with customers like never before.

Speed – Instantly support up to 8 clients at once.
Unlimited Use – Wrangle all the issues you want for one flat fee.
Performance – 100% reliability you can hang your hat on.
Unattended Support – Work while customers are away.

GoToAssist® EXPRESS™

by CITRIX®

"One support slinger against a world of technical problems? I like my odds."

Try It FREE for 30 Days
www.gotoassist.com/computer

> "Enterprise vendors are recognizing that **devices don't matter** when you're accessing an application."
>
> REBECCA WETTEMANN, ANALYST, NUCLEUS RESEARCH INC.

NEWS ANALYSIS

Business Apps Target Consumer Devices

More and more software vendors are creating tools that let employees use their personal devices to access key corporate systems. By Joab Jackson

AS BUSINESS USE of tablet computers, smartphones and other consumer-focused devices grows, makers of enterprise applications are taking notice, analysts say.

"Enterprise vendors are recognizing that devices don't matter when you're accessing an application," said Rebecca Wettemann, an analyst at Nucleus Research Inc. "If I'm out in the field, I should be able to access information to do my job."

A ChangeWave poll of 1,600 IT buyers late last year found that 14% of companies plan to purchase tablet computers for job-related tasks. The survey also found that workers appear to be eschewing enterprise-oriented devices from Hewlett-Packard Inc. and Research In Motion Ltd. in favor of consumer devices like Apple Inc.'s iPad.

Analysts note that whereas developing client software for mobile devices built specifically for enterprise use is not a new phenomenon, creating business applications for gadgets designed for consumers is less common.

Consumer devices "really have transformed into business tools," said Chris Fleck, vice president of community and solutions development at Citrix Systems Inc. "They are allowing people to leave their laptops at home."

Harry Labana, chief technology officer at Citrix, called the growing use of consumer tablet and smartphone devices in the workplace a sea change in enterprise IT thinking.

Citrix's Receiver client tool lets users of iPhones, iPads and Android-based devices access software and data on desktop systems.

Clint Oram, CTO and co-founder of SugarCRM Inc., noted that "the iPhone has hands-down captured the imagination of the corporate user."

SugarCRM offers an application that mobile workers can use to fetch client phone numbers, addresses or e-mails from the CRM system back at the office, Oram said.

Other top makers of enterprise software have also moved to take advantage of the spread of consumer devices within businesses.

For example, IBM has developed tools that allow iPhone and Android users to access the features of its Maximo asset management software via mobile handset Web browsers. And the Afaria software package from SAP AG's Sybase unit can help administrators better control smartphones and tablets.

Of course, developing tools for consumer gadgets does pose challenges, particularly for software developers looking to work with Apple, which maintains strict control over apps that run on its devices, noted Oram.

"Apple has some room for improvement," he said. "The deployment process is a little challenging if you are thinking about a one-off customized application." ◆

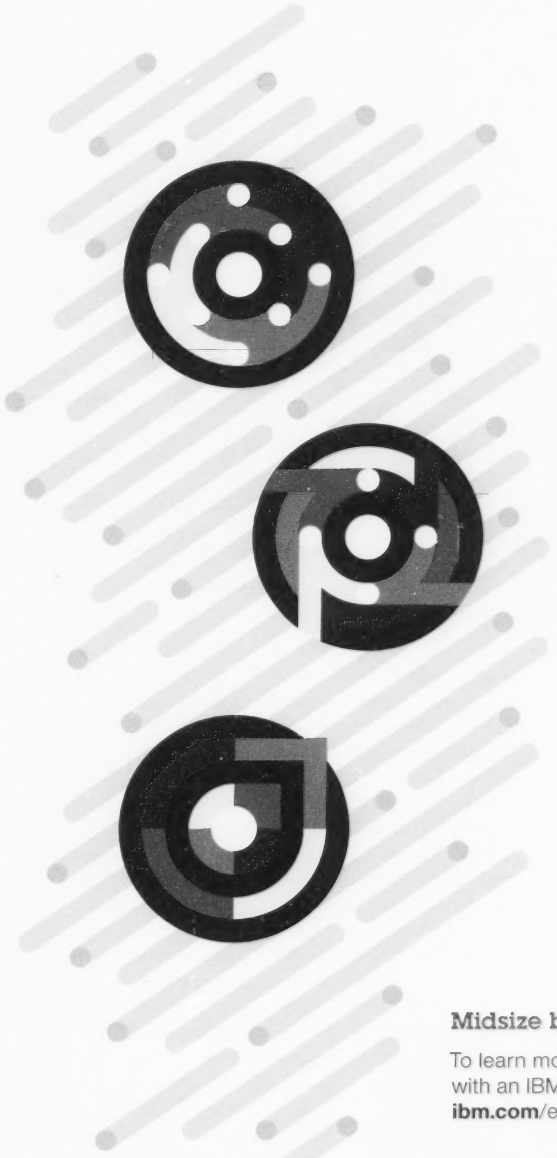
Jackson *is a reporter for the IDG News Service.*

© FOTOLIA / JAKUB JIRSÁK

Building the engines of a Smarter Planet:

How midsize businesses get more from their data, while paying less to store it.

On a smarter planet, information doesn't just grow—it evolves. That's why midsize businesses need a storage system designed to grow with both their business and their increasingly complex information. Enter the IBM® Storwize® V7000, a compact midrange disk system designed and priced for midsize companies. The IBM Storwize V7000 includes advanced features like storage virtualization, thin provisioning, and automated tiering at no additional cost, helping midsize companies store their data in a way that's simple, flexible and affordable. Here's how:



1 **Improve application throughput by up to 200%.** Automated tiering moves frequently used information to faster drives, which can provide quicker search results and lower costs for storing data.

2 **Maximize the potential of your infrastructure.** With essential technologies like virtualization and thin provisioning, you can maximize storage potential without having to choose between performance and efficiency.

3 **Simplify your storage management.** A graphical user interface can simplify configuration, provisioning, tiering and upgrades, making users more productive, resources better utilized and growth easier to manage.

IBM Storwize V7000
A compact midrange disk system designed and priced for the growing needs of midsize companies. Starting at

$1,250 per month for 36 months.

Midsize businesses are the engines of a Smarter Planet.

To learn more about products like the IBM Storwize V7000, connect with an IBM Business Partner today. Call **1-877-IBM-ACCESS** or visit **ibm.com**/engines/storage

IBM®

1. Based on IBM internal study. Actual results may be different based on storage, server and database configuration. Prices subject to change and valid in the U.S. only. Actual costs will vary depending on individual customer configurations and environment. IBM Global Financing offerings are provided through IBM Credit LLC in the United States and other IBM subsidiaries and divisions worldwide to qualified commercial and government customers. Rates are based on a customer's credit rating, financing terms, offering type, equipment type and options, and may vary by country. Other restrictions may apply. Rates and offerings are subject to change, extension or withdrawal without notice. IBM, the IBM logo, ibm.com, Smarter Planet, the planet icon and Storwize are trademarks of International Business Machines Corp, registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at www.ibm.com/legal/copytrade.shtml. © International Business Machines Corporation 2011.

IT Help Desk Calls Up Again in 2010

Calls for IT assistance are increasing as many companies cut back on help desk personnel, surveys find. By Patrick Thibodeau

AT THE SAME TIME information technology is touted as getting less complex and easier to manage, more workers than ever are turning to IT help desks for assistance, according to a study released late last year.

The HDI study, based on a survey of IT managers, directors and other personnel at some 800 businesses, government agencies and organizations, concluded that there's no single explanation for the continuing increase in calls to help desks.

Sixty-seven percent of survey respondents said that calls had increased at their organizations during 2010. In a survey a year earlier, roughly the same percentage of users reported an increase.

The membership of HDI, formerly known as the Help Desk Institute, includes some 50,000 service and technical support workers.

Roy Atkinson, an analyst at HDI, said that efforts to ease the process of contacting help desks may account for some of the increase in calls. For instance, creating a single point of contact — and accepting queries sent via instant messaging tools, e-mail and social media — encourages more users to seek help.

Those surveyed cited multiple reasons for the uptick in calls: 41% pointed to infrastructure or product changes, 26% blamed expanded service offerings, and 22.5% said they have more users.

Earl Begley, an IT project manager at the University of Kentucky and head of HDI's desktop advisory board, said incident volumes at the university's healthcare help desk are increasing by 15% to 20% annually. At least part of the increase can be attributed to the use of new healthcare technology, he said.

Begley added that help desk workers find the influx of calls "frustrating, because they see the same problems over and over again."

The university hopes that a move to implement Information Technology Infrastructure Library (ITIL) best practices can help reduce call volumes, especially the repetitive calls.

ITIL incorporates best practices for a number of IT management areas, including the help desk, that are designed to help determine the root cause of IT problems and predict future difficulties.

The increase in requests for IT support comes as many companies have cut back help desk operations, according to a survey of 134 organizations late last year by research firm Computer Economics. That survey found that help desks now account for about 6% of the total IT staff, down from 6.9%.

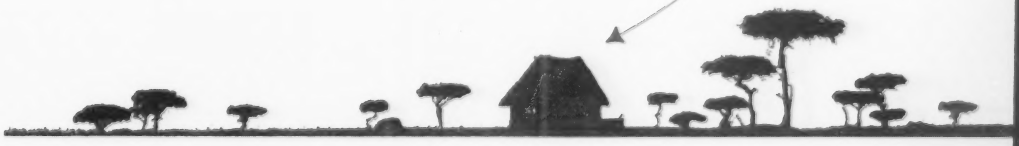
The Computer Economics report said the results "represent a relatively substantial dip and indicate that providing high-quality support to users assumed a lower priority amid the wave of operational budget-cutting and staff reductions that accompanied the official end of the recession." ◆

> "[Help desk workers find the influx of calls] frustrating because **they see the same problems over and over again.**"
>
> EARL BEGLEY, IT PROJECT MANAGER, UNIVERSITY OF KENTUCKY

© FOTOLIA / GERNOT KRAUTBERGER

© 2011 Polycom, Inc.

THIS MORNING, DIPLOMATS IN NEW YORK VACCINATED 2,500 KIDS IN ANGOLA.



The vaccine is live. The aid workers are ready. But then there are questions. Questions that can only be answered by talking face-to-face. Polycom unified communications blurs the distance between here and there, powering smarter conversations. So you can resolve a healthy debate, even when you're 7,000 miles away.

Get the whitepapers at **theartofconversation.com**

POLYCOM® | the art of conversation

1&1® WEB HOSTING

"Working with startup companies on a tight budget, my clients know an online presence is needed. I use 1&1 exclusively to satisfy their requests for reliable hosting at affordable rates."

Lance Ochs, www.vacantpixels.com

PROFESSIONAL WEBSITES
6 MONTHS FREE!*

MEMBER OF united internet

*Offers valid for a limited time only. 12 month minimum contract term applies for web hosting offers. Setup fee and other terms and conditions may apply. Mobile software selection dependent on hosting package and requires a Windows PC. Domain offers valid first year only. After first year, standard pricing applies. Visit www.1and1.com for full promotional offer details. Program and pricing specifications and availability subject to change without notice. 1&1 and the 1&1 logo are trademarks of 1&1 internet AG, all other trademarks are the property of their respective owners. © 2011 1&1 Internet, Inc. All rights reserved.

As the world's largest web host, we know the developer features you need in a hosting package!

.com .info .org .net

Domains included
All hosting packages include domains, free for the life of your package.

Unlimited Traffic
Unlimited traffic to all websites in your 1&1 hosting package.

Developer Features
Extensive language support with PHP 5/6 (beta) with Zend Framework and git version management software.

Online Marketing Tools
SEO tools to optimize your website. 1&1 Webstatistics makes it easy to monitor your progress.

Green Data Centers
We're committed to hosting your site with a minimal impact on the environment.

1&1® HOSTING PACKAGES
6 MONTHS FREE!*

1&1® BUSINESS PACKAGE:

- 3 Included Domains
- Private Domain Registration
- 250 GB Web Space
- UNLIMITED Traffic
- NEW: Version Management Software (git)
- 2,500 E-mail Accounts
- 50 MySQL Database (100 MB)
- 25 FTP Accounts
- E-mail Marketing Tool
- 24/7 Toll-free Customer Support

~~$9.99~~ per month*

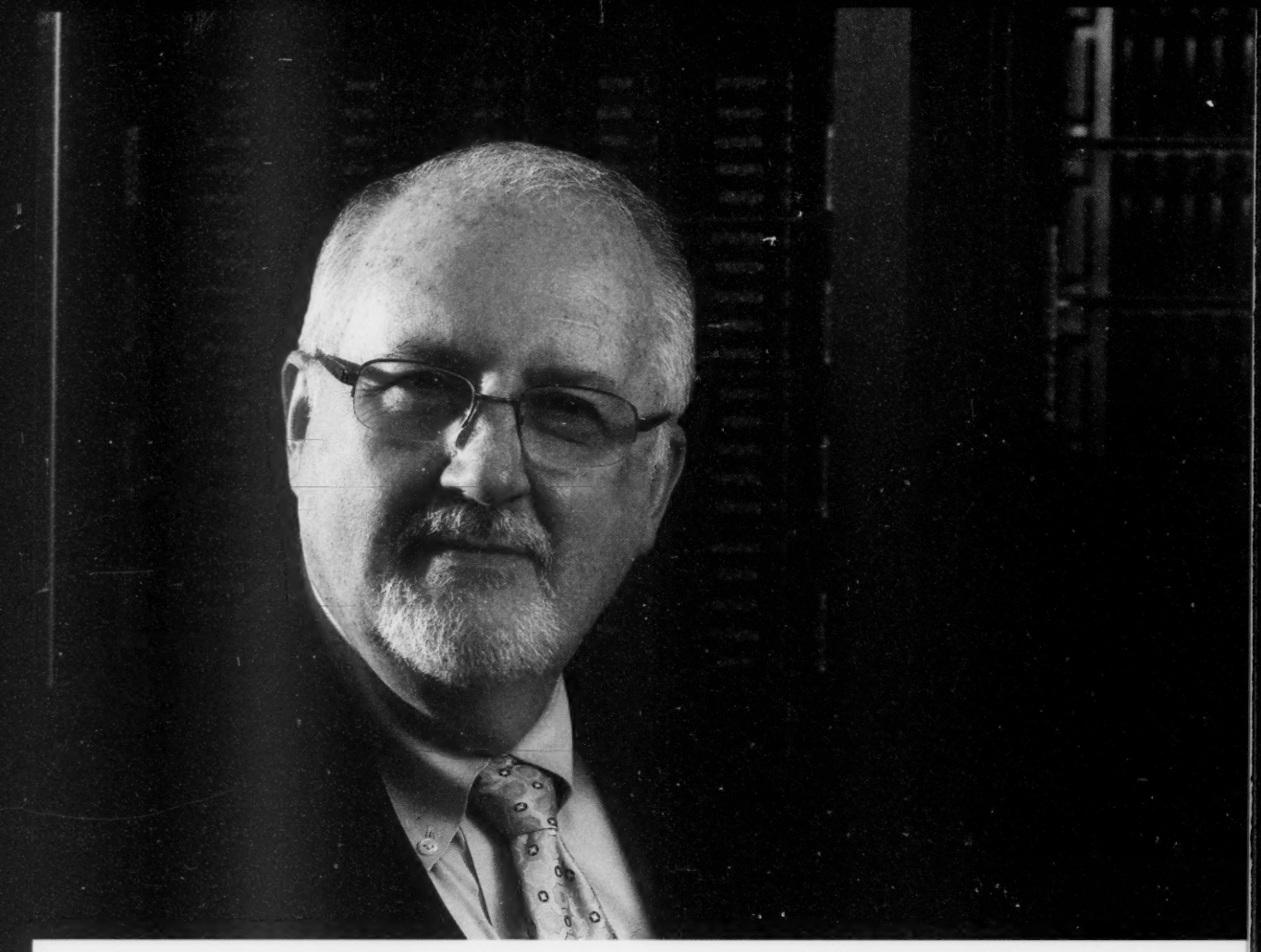
Need more domains?
.info domain only $0.99 first year*
.com domain only $4.99 first year*

More great offers available on our website!

1&1®

Get started today, call 1-877-GO-1AND1

www.1and1.com



THE Grill

Harry Lukens

This healthcare CIO is building a robust wireless network and a loyal workforce.

The most interesting thing people don't know about you: I find fishing quite relaxing after a crazy day.

Life's ambition: I'm not sure what I'd ask for on a wish list. I love this job. This is the best job I've ever had. If you have a great marriage, a great family life, and good health and a good job, what else do you need?

Philosophy in a nutshell: Treat people the same way you want to be treated.

Best book you've read recently: *Killing for Coal: America's Deadliest Labor War*, by Thomas G. Andrews

BACK IN 1994, *Lehigh Valley Health Network, a two-hospital system based in Allentown, Pa., had a high IT personnel turnover rate. Today, that rate hovers around 1%, and if you ask employees why, they point to CIO Harry Lukens. Over the past 16 years as the head of a 140-person IT department, Lukens has stuck by a few principles that have served him well: Treat others as you'd like to be treated, no idea is awful, and build a tight team by serving the greater community together. Lehigh Valley has received many awards and accolades over the past decade. This year, the network was named a "100 Most Wired" and "25 Most Wireless" hospital by* Hospitals and Health Networks *magazine. But Lukens is most*

Continued on page 14

PHOTO COURTESY OF LEHIGH VALLEY HEALTH NETWORK / PHOTOGRAPHED BY AMICO STUDIOS

DYNAMICS™

In 1950, all credit cards were created equal
In 2011, all that changes

www.poweredcards.com

Dynamics would like to thank its first issuer

citi®

FINOVATE FALL 2010 BEST OF SHOW

DEMOgod™

DEMO Fall 2010
DEMOgod Winner

DEMO people's choice

DEMO Fall 2010
People's Choice Award Winner

INNOVATIONS BEST OF INNOVATIONS 2011

© 2011 Dynamics Inc. All rights reserved. The Dynamics logo, Hidden, Redemption, and MultiAccount are trademarks of Dynamics Inc.
Citi and Arc Design is a registered service mark of Citigroup Inc.

Continued from page 12
proud of Lehigh Valley's place on Computerworld's *100 Best Places to Work in IT list for two years running.*

How long has your hospital been wireless? We actually had a wireless network in place here in 1997. We got into that game because I do rounds with the docs just to see how life is. One of the things I noticed is the way a physician had to practice. He comes into a unit, sits down on a workstation, pulls up labs or whatever, then logs off and goes and sees the patient. Then he does the same thing before he sees the next patient. He was tethered to a workstation. Our idea was, let's figure out a way for docs to log on once and just keep rolling through the hospital. To do that, they needed a wireless network.

Initially, we gave them these huge, simple devices. They looked like they were three by five feet, weighed 100 pounds and had a battery life of about 10 minutes. A couple of things came out of that: We learned how to mange a wireless network, and the docs got used to carrying a wireless device that connected them to systems. Over the next bunch of years, we were able to make the wireless better, shrink the devices and put more on that device.

> **In general, our docs embrace technology,** use technology, and understand that technology has its warts and you've got to work around them.

What is the biggest speed bump in rolling out a wireless network? It usually is the physician culture. There was some pushback in the beginning, especially with the initial wireless devices. They were ridiculous in size and weight and capabilities, but it got better. They realized how efficient it could make things; they realized they could be sitting having a cup of coffee somewhere looking at labs. But in general, our docs embrace technology, use technology, and understand that technology has its warts and you've got to work around them.

In 1999, you were also an early adopter of a computerized physician order entry system. Was that difficult to implement? When we put CPOE in place, there was lots of pushback. It was like, "Oh my goodness. I used to be able to give this lab request to a nurse, but now I have to put it in myself." But we already had wireless and the devices for it. It was just a software issue at that point. It was important for us to untether the docs to make them more efficient and make their lives better. We've had our struggles with that, but now if that thing even burps, the docs are all over that.

You have a turnover rate of only 1%. How did you achieve that? When I came to work here, one of the things I wanted the CEO to support was a philosophy that you could do good things for the hospital and also treat people well. That's my philosophy. My people will tell you we treat them with respect. This sounds cliché, but we treat them like family. We do things here from a nontechnical sense that pulls people together. I also believe most people want to do good things but just don't know how.

When I came here, the turnover rate was ungodly high for a lot of reasons. One of the things I thought we needed to do as a department was learn to play together. So I decided I'd marry that concept with giving back to the community. We started a community service program. Over the last 15 years, every month, we do something for the community.

Last November, we had a hat, coat and glove drive for the local schools. In December — and this is what we're famous for locally — we decorate Christmas trees and give them to a local counsel of churches, and they give them to needy families. We provide pizza and all that stuff, and it becomes play time. At the end of the day, we give prizes for the best trees, and the trees then go to families that need them.

What is the "Wild Idea Team," and how did you come up with the concept? If you're an IT guy, you're attracted to shiny things. So often, I'd be walking through the hall here and someone would say to me, "Yo, Harry, if we bought this thing I saw, it would do this for us." Or they'd say, "Have you thought about doing this?" I was bombarded with stuff like that — internal and external to IS. So I put together about 20 people, a group that includes docs and nurses, not just IS people. We get together once a month and talk about wild ideas. There are only two rules: No snickering, and no idea is awful. People sometimes bring the craziest ideas, but they also bring ideas we use.

Can you give us an example of a wild idea? Here's one I'm responsible for. I have two Labrador retrievers at home, so I'm reading in a magazine about how vets are using a portable ultrasound device because they can't get dogs in regular ultrasound machines. I wondered if we could use those portable devices on people. Of course, people said, "Yo, it's for dogs." I said, "OK, but it's also pending approval by the FDA." Sure as hell it gets approved by the FDA.

We show it to the docs who run intensive care, and now they use it to place lines or shunts for patients who can't move.

— Interview by **Lucas Mearian**

Putting you

in the driver's seat.

Complete Customer Satisfaction. It's what has helped Enterprise Holdings* become North America's largest and most comprehensive service provider in the automobile rental industry. And helping them drive satisfaction is Dell Services.

Calling on our extensive knowledge of the car rental business and all of the systems that support it, we've helped Enterprise Holdings maintain exceptional customer service and grow their leadership position. All of which has led to acknowledgement we're particularly proud of: "Finding a partner that you can trust, that can be relied upon and that operates with integrity, flexibility and transparency is both difficult and indispensible. Dell Services is such a partner."

How can we boost your business? After all, the future is wide open. **Visit dell.com/services.**

Applications Business Process Consulting Infrastructure Support

DELL Services

*Includes the operating subsidiaries Alamo Rent-a-Car, Enterprise Rent-a-Car, National Rental.

© 2010 Dell Inc. All rights reserved.

EXCLUSIVE
ACCESS

Join us in the Inner Circle.

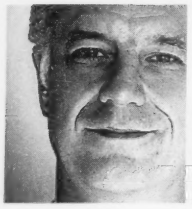
The Computerworld Inner Circle Research Panel was established as a way for members of the IT community to share information and gain insight into various technology topics, including new initiatives and top issues faced by IT professionals and executives.

Inner Circle panel members get exclusive access to results of the surveys on the panel site at: **www.computerworldinnercircle.com**, and are eligible for some nice cash and prize giveaways for their participation. We look forward to hearing your input!

Join for Free!

To register as a panel member, visit **www.computerworld.com/haic**

COMPUTERWORLD
INNER CIRCLE
RESEARCH PANEL



OPINION

BART PERKINS

Disappearing CIOs

Several Fortune 500 companies are eliminating the corporate CIO position. But a CIO-less enterprise has drawbacks.

SAVE THE CIO, SAVE THE ENTERPRISE! It might not be the catchiest slogan, but there's more than a little truth in it.

Several Fortune 500 companies are eliminating their corporate CIO positions. They plan to move IT into the business units (BU), on the theory that an IT staff that isn't distracted by corporate initiatives can provide better support for BU priorities. A minimal corporate IT staff will support only corporate functions, such as HR, Finance and Legal. An IT leadership group (ITLG) composed of the BU CIOs will establish IT direction, create standards and allocate resources for projects across all departments.

This restructuring might be viable for a holding company with semiautonomous business units or in a utopian environment with aligned priorities and no political agendas. And it might be a way to fire a CIO, but there are far less disruptive approaches.

A CIO-less enterprise has significant drawbacks, such as these:

Limited corporate perspective. ITLGs chaired by corporate CIOs balance corporate perspective with BU needs. Without strong corporate leadership, ITLGs usually lack long-term focus and make decisions benefiting individual BUs at the expense of the enterprise (and shareholders). Rotating the chair rarely solves this problem. Typically, BUs with more money acquire additional IT capabilities, and those with less money fall behind.

Standardization impasse. The best IT architectures and infrastructures balance BU-specific requirements with enterprise commonality. Both an effective architecture and the supporting infrastructure require a great deal of planning. In the absence of corporate leadership, any BU can slow the process until it stops. Dissenting BUs always insist that they are different and that the rest of the organization doesn't understand their business. Proving that a common solution would work requires analysis that employees from the other BUs don't have the resources or authority to undertake.

A lack of new enterprise applications. Companywide software rollouts usually change business processes and require active support from BU executives. Without a CIO, BUs rarely agree to release their best staffers to work on projects that don't benefit them directly.

No clear decision-maker. ITLGs strive to make decisions by consensus. But they often degenerate into factions, and the need to make tough decisions can lead to extended, acrimonious debate, with no consensus possible. Without a corporate CIO, critical decisions might remain unmade. Worse, they might be made by a CEO with little IT knowledge who merely succumbs to political pressure.

Limited accountability. Architectures and standards provide value only when everyone embraces them. BUs often disagree with some standards or parts of the architecture. Without corporate review, BUs can simply ignore standards they dislike.

Decreased economies of scale. Effective organizations standardize business processes, technology platforms, supplies, etc. Standardization allows consolidated purchases that obtain the best prices from suppliers. But the consolidation process requires a high degree of coordination. Without a CIO negotiating on behalf of the entire organization, it becomes significantly more difficult to maximize economies of scale.

Some business executives even believe IT has become a commodity that can be migrated to the cloud and forgotten. Unfortunately, the cloud does not address any of the above issues.

Good governance requires checks and balances inherent in the tension between corporate and business unit priorities. Within three years, each of those Fortune 500 companies will re-create a corporate CIO position. Betcha. ◆

Bart Perkins is managing partner at Louisville, Ky.-based Leverage Partners Inc., which helps organizations invest well in IT. Contact him at BartPerkins@LeveragePartners.com.

AMD Opteron 64

UNLEASH

faster server ROI.

With budgets flat and workloads exploding, it's time to unleash the innovation and cost savings locked up within your aging server infrastructure with next generation HP ProLiant servers powered by 8- and 12-core AMD Opteron™ 6100 Series processors. Upgrade now and experience:

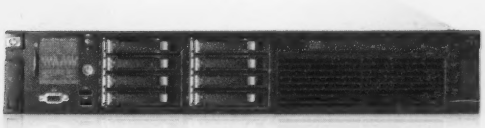
- 23:1 server consolidation ratio[1]
- 96% or more savings on energy and cooling[1]
- $48,380 in total savings for every 100 users[2]

Transform your server environment while building the foundation for the HP Converged Infrastructure. All for an investment that pays for itself in as little as 2 months.[1] Unleash faster server ROI now.

Outcomes that matter.

See the proof. Access our ROI calculator and register to download your podcasts at **hp.com/servers/unleash5**

20 YEARS
OF x86 SERVER INNOVATION



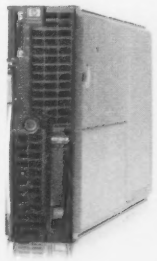
HP ProLiant DL385 G7 Server

- AMD Opteron™ Processor Model 6134
- 4 GB memory, up to 256 GB max
- Up to eight (8) small form factor high-performance SAS hard drives with standard cage. Or up to 16 SFF or 6 LFF hard drives with optional drive cages.
- Integrated Lights-Out 3 (iLO 3) providing industry-leading management and 8X faster remote console performance

$2,599 (Save $498)

Lease for just $69/mo.*

SmartBuy (PN: 605869-005)



HP ProLiant BL465c G7 Server

- AMD Opteron™ Processor Model 6128HE
- 8 GB memory, up to 256 GB max
- Up to two (2) hot plug small form factor SAS, SATA, or SSD drives
- Integrated Lights-Out 3 (iLO 3) providing industry-leading management and 8X faster remote console performance
- Two Integrated HP Virtual Connect FlexFabric Converged Network Adapters

Starting at $3,079

Lease as low as $88/mo.*

Copyright © 2010 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein. AMD, the AMD Arrow logo, AMD Opteron and combinations thereof are trademarks of Advanced Micro Devices, Inc.

[1]For details on claim substantiations, visit hp.com/servers/unleash5

*Prices shown are HP Direct prices; reseller and retail prices may vary. Prices shown are subject to change and do not include applicable state and local taxes or shipping to recipient's address. Offers cannot be combined with any other offer or discount and are good while supplies last. All featured offers available in U.S. only. Savings based on HP published list price of configure-to-order equivalent (HP ProLiant DL385 G7 server: $3,097–$498=SmartBuy price $2,599; HP ProLiant BL465c G7 server: starting at $3,079). Financing available through Hewlett-Packard Financial Services Company and its subsidiaries (HPFSC) to qualified commercial customers in the U.S. and is subject to credit approval and execution of standard HPFSC documentation. Prices shown are based on a lease 48 months in term with a fair market value purchase option at the end of the term and are valid through December 31, 2010. Other charges and restrictions may apply. HPFSC reserves the right to change or cancel this program at any time without notice.

hp

"CIOs are no longer developing technology. Instead, they're finding IT and putting it together in ways that change the top and bottom lines of their companies," says longtime CIO Ralph Szygenda.

Should you get an MBA?

It takes a monumental commitment, both financially and personally, but an MBA could be the fastest ticket to business proficiency.

BY JULIA KING

THE CIOs at Procter & Gamble and Microsoft don't have one. Neither does the CIO at Wal-Mart. So, no, technically, you don't need to have a master's degree in business administration to be successful in a top technology position at a world-renowned company.

But realistically, it's an extremely good idea, especially for pure technologists. That goes not just for CIOs, but for project managers, business analysts and virtually any other IT professional aiming to climb to the top of the corporate ladder.

BRIAN SMITH PHOTOGRAPHY

Timing Is Everything

THE IDEAL TIME to earn an MBA is after you've had three to five years of experience in the business world, according to CIOs, academics and career experts.

"An MBA degree is meant to be very concrete and very practical," says IT management consultant Paul Glen, who at 27 was the youngest member of his class when he earned his MBA in 1991. "To go for an MBA when you haven't had enough work experience is pretty useless, because you have no reality to connect it to." In fact, Glen notes that the top business schools won't even accept MBA applications from students directly out of college anymore.

Sun National Bank CIO Angelo Valletta says if he had it to do again, "I'd have waited a little bit" before enrolling in an MBA program. He enrolled at the age of 22 immediately after earning his undergraduate degree, which he had pursued while working full time at another bank. That was more than 20 years ago.

"But I went straight through because the company was paying for it and I thought I might as well just keep on going," he says. But again, Valletta continued to work full time, supplementing his classroom and case-study learning with on-the-job training in virtually all business processes associated with the financial services industry.

Throughout his years in school, "I worked in back-office operations, I sold IRAs, I supported the credit card business, and I supported the retail business from a customer service standpoint. I don't think I would be successful without having both an MBA and the formative years in operations at the bank," he says.

Matson Navigation CIO Peter Weis had been in a management role for several years after climbing the corporate ladder in IT when he started to pursue an MBA. He says one huge benefit of earning the degree while simultaneously working as a CIO is that he was able to apply what he learned immediately.

For example, armed with a deeper knowledge of finance, Weis overhauled how Matson's project management office works. "We set up a business office, which runs all of our budgeting, project costing, administrative processes and all nontechnology processes," he explains.

IT budget requests also changed dramatically. "Now we don't issue a capital request without a net present value, payback period and a sensitivity analysis," Weis says. "All of that is standard fare for us now. That wasn't the case before an MBA."

– JULIA KING

One big reason: No one is exclusively a technology chief anymore. Everybody's a business executive, whether they call themselves that or not.

"CIOs are no longer developing technology. Instead, they're finding IT and putting it together in ways that change the top and bottom lines of their companies," says Ralph Szygenda, former global CIO at General Motors, Bell Atlantic and Texas Instruments and now a strategic consultant at iRise, a business applications vendor in El Segundo, Calif.

"In the last 10 years, you could get away with [mainly] technology knowledge because a lot of the things a CIO did were efficiency moves, such as consolidating data centers. It was a great period for the technology CIO," says Szygenda. "But now, everybody has done the efficiencies. Growth is the big thing."

"I'd argue that **what I learned about negotiating at Wharton** has paid for my MBA degree 20 times over.

PETER WEIS, CIO, MATSON NAVIGATION CO.

Szygenda himself doesn't have an MBA, yet like virtually all CIOs — with MBAs and without — he says enabling your employer's growth requires a comprehensive knowledge of business, particularly finance, which an MBA certainly affords. But going back to school to earn a two-year MBA can cost $55,000 to $60,000 per year. Meanwhile, a generous uptick in salary — especially if you stay at your current company — is by no means guaranteed upon graduation (see "Landing a Leadership Role," page 24).

Fast-tracking

But an MBA isn't the only way to acquire critical business knowledge. One alternative is rotating through various job assignments across business units to gain a first-hand understanding of processes associated with everything from sales and marketing to logistics, manufacturing and supply chain operations. The downside to that approach is that it can take years. Indeed, one measure of an MBA degree's worth, CIOs say, is that it is frequently the fastest way to acquire mandatory business knowledge.

"The traditional IT career path doesn't lend itself that well to building a mind-set and a skill set of how the CEO and CFO really think," says Peter Weis, CIO at Matson Navigation Co., an ocean freight carrier based in Oakland, Calif.

"Learning their language deeply by studying [business] cases and spending hours thinking about how other executives think is very hard to pick up in your normal work in the CIO role," adds Weis, who returned to school in his 40s to earn an MBA from the University of Pennsylvania's Wharton School of Business.

Yet going back to school, especially while continuing to work, is no easy feat. "It was maybe the hardest thing I have ever done in my career," Weis says. At the time, he was a single parent whose daughter had just left for college. His employer paid his tuition and expenses, but Weis was required to use one vacation day for every two days he spent in school. He also agreed to remain at Matson for three years after earning his MBA.

For two years straight, Weis worked full time and attended classes every other weekend, all day Saturday and Sunday. "On my off weekends, it was absolutely studying full time Saturday and Sunday, which made it a seven-day commitment."

Continued on page 24

IT Roadmap
CONFERENCE & EXPO

An IDG Enterprise Event

PRODUCED BY

CIO COMPUTERWORLD CSO InfoWorld IT WORLD NETWORKWORLD

Navigate the Technology Landscape in One Day.

At **IT Roadmap Conference & Expo**, you'll discover everything you need to know to make informed technology decisions for the year – in just one day. And we're coming to New York!

NEW THIS YEAR IT Roadmap's agenda brings you more timely content for rapid learning close to home, exploring such high-priority IT topics as:

The New Data Center
Examine how the move to blade servers, utility computing, unified fabrics and pooled storage creates the agility that today's dynamic business environments demand.

The Connected Enterprise
Explore how enterprises are weaving together VoIP, unified communications and dynamic WAN and mobility technologies to support the distributed enterprise.

The Modern Network
Applications are the lifeblood of the organization – review strategies on how to best manage, control and optimize them for maximum efficiency.

The Public and Private Cloud
With virtualization and "as-a-service" offerings paving the way for efficient investments, explore how companies adopt public, private and hybrid clouds.

The Evolving Threat Landscape
Take a close look at how to defend the corporate fortress against new threats from today's sophisticated cybercriminals and attacks.

New York City

February 8, 2011

8:30am – 4:30pm

Javits Convention Center

Register today!

www.itroadmap.net/nycad

UNDERWRITER

Juniper Networks

OFFICIAL HOST

SONICWALL

CONTRIBUTING SPONSORS

DELL KACE QUEST SOFTWARE rackspace HOSTING

SCRIPTLOGIC A QUEST SOFTWARE COMPANY SOPHOS simply secure XIRRUS Switching Without Wires

EXHIBITOR SPONSORS

A10 Networks Aerohive Alcatel-Lucent

BLUECAT NETWORKS CHINA TELECOM

Global Knowledge IRON MOUNTAIN Logitech

meraki Raritan SUNGARD Availability Services

WatchGuard WildPackets Zenith Infotech Ltd

For the full tour schedule, and to learn more, visit: www.itroadmap.net/nycad

For more information sponsorship opportunities and benefits, contact Andrea D'Amato, Vice President and Publisher of Network World, at adamato@nww.com or 508-766-5455.

Continued from page 22

"You're constantly battling to strike the right balance, performing your job and hitting all of your critical obligations," Weis says. "It was important to me that there be no slip in my performance at the company. That led to a 24/7 feeling all the time."

As for the career benefits, he says, "An MBA doesn't translate into instant financial gratification." Nor did it significantly increase his prestige among executives in Matson's C-suite, many of whom had already earned advanced degrees from top-notch schools.

An MBA doesn't necessarily enhance one's innovation and leadership abilities either, according to Paul Glen, an IT career expert, a *Computerworld* columnist and the author of the IT management book *Leading Geeks*. Glen, who holds an MBA from Northwestern University's Kellogg Graduate School of Management and has taught MBA courses at Loyola Marymount University and at the University of Southern California, says that "case methods that are taught in MBA programs can help people to think in different ways, but I've never seen anything that would teach someone to think innovatively."

Leadership skills are similarly glossed over in most MBA programs, Glen says. "Leadership is about understanding the emotions of people. MBA programs don't teach that well. Most MBA programs are far more focused on rational thought. They try to teach you how to think like a rationalistic CEO, but then you go back in the workforce and you're not a CEO. You're a manager, and you know how CEOs are supposed to approach problems, but you don't know more about managing people."

However, you do know more about how others think, says Weis.

"The biggest thing it has done is connect me to the financial, marketing, sales and operations issues. I see the business better through my peers' eyes," he says. Also invaluable, Weis says, is the deep knowledge of finance he acquired in business school. This has served him especially well in managing a large portfolio of competing projects and in negotiating with IT vendors.

"One skill I developed that was a surprise to me was negotiation," Weis says. Fifty percent of IT spending is with IT vendors, but CIOs rarely get training in how to negotiate deals, he says. Prior to earning his MBA, he says he'd squeeze a vendor for maybe 30% and think that he had done a good job. "I'd argue that what I learned about negotiating at Wharton has paid for my MBA degree 20 times over," he says.

John Seral, CIO at GE Infrastructure, returned to school to earn an MBA at DeVry University's Keller Graduate School of Management in Chicago three years after joining GE and six years after earning an undergraduate degree in computer science at the University of Illinois.

"Three years into the job at GE Capital, I realized I had a gap trying to understand cash flow and the language of the business. There were a lot of things

Continued on page 26

LANDING A LEADERSHIP ROLE

MAKE NO MISTAKE: An MBA might not be listed as mandatory in many IT job descriptions, but graduate-level management degrees are without a doubt preferred by companies seeking to fill business/technology leadership roles.

"All other things being equal, I'd give preference to the candidate with the MBA," says Jim Marascio, CTO at 11Giraffes.

At Matson Navigation, CIO Peter Weis notes that he just promoted an applications architect to a management role in software development, and "one of the primary reasons I promoted him is because he has an MBA," he says. Overall, about 5% of the professionals in Matson's IT organization hold MBAs. "I'd love for my entire project management office to have MBAs," Weis says.

"Absolutely you have to have an MBA if you want to be viewed as a strategic business partner," says Whirlpool Corp. CIO Kevin Summers. "In today's environment and in the future, there will be very few people at the VP-and-above levels without an MBA," he predicts.

JAMES DALLAS

James Dallas, senior vice president of quality and operations at Medtronic, says an MBA surely gives candidates who are up for leadership positions an edge. But what he's even more interested in is how and when the potential leader earned his MBA.

"If someone tells me they went to school at night while having a family and got their MBA, that tells me they can manage multiple priorities at one time, which is a key trait for an effective leader," Dallas says.

Moreover, Dallas advises his executive peers to be prepared with an advancement plan for employees with newly minted MBAs.

"Companies have to seriously think about what is next for the person" who is pursuing their MBA, Dallas says.

"Once you get your MBA, you want to apply your learning. I tell companies to be prepared once that person graduates. If you don't have a bigger role waiting for them, they will try to find one outside," he warns.

But a bigger role, additional responsibilities and a new title after earning an MBA don't necessarily mean more money, at least not initially. In fact, most recent graduates shouldn't expect to offset the tens of thousands of dollars they spent on tuition and expenses with a big salary increase in their first few years after completing school.

"I never did the calculation. In fact, I encourage people not to," says IT management consultant Paul Glen. "If people look at education only through the lens of investment, they are missing the point. It's about expanding your mind. If someone asks me about an MBA primarily as an investment, I tell them not to do it. If they want the credential more than the knowledge, they probably won't get the value from it."

That said, Glen estimates that he recouped the cost of his MBA within a few years. "But as they say," he cautions, "past performance is no indication of future performance."

– JULIA KING

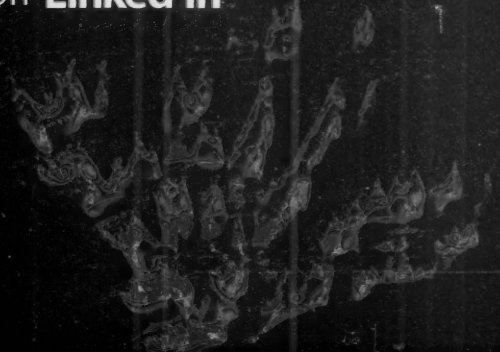
Discussion Underway

(want in?)

The Computerworld LinkedIn Forum
is a community for all things IT:
news, analysis and discussion about
topics within IT, including careers,
management and hot topics.
If you are an enterprise IT practitioner
at any level we'd love to have you join.

Apply for membership today at
www.computerworld.com/linkedin

COMPUTERWORLD
on **Linked in**



Making Global Connections

AFTER FIVE YEARS of working in the corporate world, Whirlpool Corp. CIO Kevin Summers enrolled at Duke University's Fuqua School of Business. He was inspired to earn his MBA after seeing how successful CIOs at his previous employers, including global companies like GE, Coca-Cola and AT&T, connected with all aspects of the business.

"I always wanted to stay in IT but progress quickly to the CIO level and to be a great business leader as well," Summers says. "An MBA gives you access to how to work in the global economy, in different cultures and in different parts of the world." That's important, he says, because in the course of a day, the Benton Harbor, Mich.-based CIO is talking to business associates in Asia and Brazil and througnout North America.

"I can also be in an HR meeting first thing in the morning, then on to a meeting about finance, and then in meetings about marketing and supply chain," he says. "An MBA gives you the ability to walk into any of those rooms and have a foundation in that part of the business."

– JULIA KING

Continued from page 24

I didn't understand. I asked a lot of questions," he recalls. "My background was very typical — light on business courses, as I had pictured myself in math, technology and computer science."

Today, what he learned as an MBA student directly impacts how he finances and manages technology at GE Infrastructure. "Going deeper into accounting and understanding how costs are managed gives you different ideas about how to finance your projects and sell them internally," he says. "You earn credibility, and you have a lot more confidence selling your ideas."

Jim Marascio, chief technology officer at 11Giraffes in Charlotte, N.C., admits to being somewhat myopic in his approach to decision-making before earning an MBA at the University of Maine. He returned to school to earn an MBA after working a few years in a more engineering-oriented role as a technical liaison, which he landed after earning an undergraduate degree in computer science.

"One reason I went back for an MBA is that I wanted to be in a business leadership role rather than in the trenches in a development role," he says.

He says that having earned an MBA, he has a much better understanding of the views and opinions of everyone on the management team, which is invaluable because "if I can't understand why the CFO is positioning something a certain way, I'm not going to be successful working with the CFO."

Marascio says that in his role as an officer at a small digital media and products company, "an MBA is pretty close to mandatory. On a day-to-day basis, I'm working with operations people and marketing people and creative people and technology people. The ability to bridge all of those silos and to be successful really takes someone who is much more strategically than technically focused. I find that since I went through the program, I spend much more time viewing things from alternate perspectives and much more holistically."

Pulling the Right Levers

James Dallas, senior vice president of quality and operations at Minneapolis-based Medtronic Inc., agrees with Szygenda that growth is today's No. 1 business priority. Growing the business, he says, comes down to "knowing what the [business] levers are and which ones to pull to have the maximum impact." In short, it comes down to strategy. Prior to earning an MBA from Emory University's Goizueta Business School in 1994, "I knew technologies and I knew how to execute on projects," Dallas says. He had graduated from college more than 10 years earlier, and in the intervening years he had supported a wide array of functions at his then-employer, Georgia-Pacific. "I started out supporting transportation and logistics, and I ended up becoming the general manager of that function. I supported our distribution and operations, and I ended up running the Mid-Atlantic and Southeast regions of that business," he recalls.

But it was as an MBA student that Dallas says he learned "how to look at business models and the key questions to ask at an enterprise level. The MBA allowed me to get better at deciding which projects to do and when to do them based on the phase and evolution of the business model in the overall competitive environment."

Dallas says it was after earning his MBA that he started being asked to go on sales calls to some of Georgia-Pacific's largest customers "to talk about IT from a business standpoint, addressing technology from the point of view of the customer."

"I was also in strategy meetings to talk about overall business strategy, not just waiting for the IT part of the meeting to come up," he recalls. Now, if a business unit executive has a question about why his or her IT project isn't higher up on a list, Dallas simply traces how that particular project maps to the overall business strategy, and "if it isn't pulling on one of the specified business levers, it's not at the top."

The bottom line: "A CEO is looking for a CIO who will transform the business, not just implement technology. CIOs are being held accountable for their contributions to the bottom line, not just what they did to make things go faster," Dallas notes. "An MBA has allowed me to generate greater value." ◆

Other Systems
Management Vendors

DELL KACE™

Deploy in days, not months.

No kidding around. Installing a Dell KACE appliance gives you comprehensive systems management in days, not months. We also do it for a low total cost of ownership. Give us a call, let us prove it.

Network World
> Best of the Tests 2010

DELL KACE™

www.dell.com/KACE 877.MGMT.DONE

Damon Giangrande and Jose Zabala play pickup basketball in the JM Family Enterprises parking area.

IT Gets Fit

Plenty of **fitness programs** are offered to IT employees, but it takes a **top-down commitment** to get results. **BY MARY K. PRATT**

THE PHRASE "team-building exercise" has a literal meaning for the IT staff at JM Family Enterprises Inc.

A group of tech workers plays pickup basketball in the company's parking garage in an area that executives have agreed to keep clear for the regular lunchtime games. Another group of IT workers heads out to run together, while a third works out at the same time in the company gym.

This commitment to on-the-job fitness isn't just

PHOTOS COURTESY OF JM FAMILY ENTERPRISES INC.

> **It's really a trickle-down phenomenon.** If it doesn't come from the top to encourage the associates to stay healthy, then it's not going to happen.
>
> **RICHARD LUCERI, M.D.,**
> VICE PRESIDENT OF HEALTH CARE SERVICES, JM FAMILY ENTERPRISES

tolerated by IT executives there — it's encouraged.

"It allows folks to stay fit, burn off some stress, to work together and build relationships," says Shawn Berg, vice president of technology operations at the Deerfield Beach, Fla., company.

Companies with corporate fitness and wellness programs offer a diverse range of activities, facilities and services, including health fairs during business hours, 24/7 corporate gyms and on-site medical care. While these offerings benefit everyone, program leaders and IT executives say getting tech staffers on board presents both challenges and opportunities.

"Our IT services folks are for the most part sedentary, so there's a lack-of-activity issue. They are exposed to a high degree of stress. And they're so diligent and passionate about what they do that the day or night goes by and they haven't gotten up to do anything for themselves," says Richard Luceri, M.D., vice president of health care services at JM Family Enterprises.

Luceri says he works with managers in all departments to make sure they encourage their workers to make time for their own health.

"It's really a trickle-down phenomenon. If it doesn't come from the top to encourage the associates to stay healthy, then it's not going to happen," he explains.

A Department Priority

IT managers are getting the message. Berg says his department discourages employees from scheduling meetings or using e-mail after 5 p.m., so people feel like they can move on to their own activities. ("It sounds goofy, but it makes a big difference," he says.) Lunchtime meetings are also discouraged, Berg says, allowing for those midday basketball games, runs and gym sessions (followed up with showers in on-site locker rooms).

Berg isn't just paying lip service to the topic. IT managers really do help workers make their own health a priority.

Jason Schell, director of product administration for information technology services at JM Family Enterprises, works out early in the morning. He arrives at about 5:30 a.m. to exercise and then gets an egg white omelet from the cafeteria and heads to his desk.

Schell says the on-site 24/7 gym helps him fit workouts into his day, and he often bumps into IT employees who have just finished overnight shifts and are getting some exercise before going home.

"It's all about convenience," he adds.

Other companies are making a push to integrate health and wellness into the DNA of the IT department.

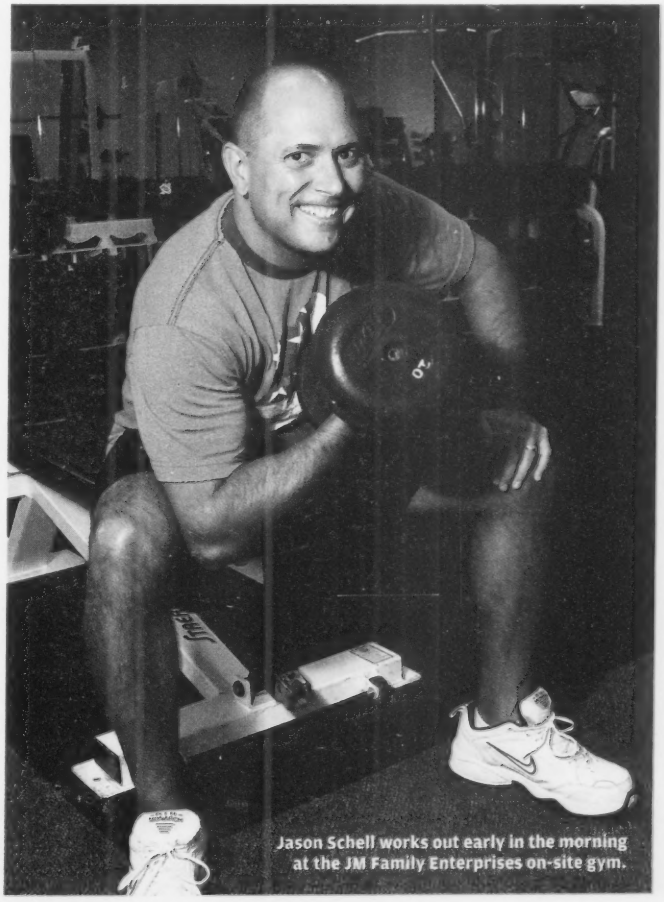
"Our IT workers do have a challenge fitting work-life balance into their schedules, but I can tell you that the IT workers are highly engaged in our wellness program," says Bob Merberg, wellness program manager at Paychex Inc., a payroll services company headquartered in Rochester, N.Y.

Merberg says there's no specific program that draws in techies. Rather, the company and its IT leaders had to build a culture that made health as important as other components of the IT department.

Walking the Walk

Paychex database administrator Laurie Wright says she has seen an evolution in how her department regards these programs.

"There was probably initially a lot of hesitation, not



Jason Schell works out early in the morning at the JM Family Enterprises on-site gym.

because they were concerned that we wouldn't get our work done but because we support production and something might happen [while] we were out running," she says, with a laugh. "But we showed we could handle ourselves. If you work in a stressful kind of environment like IT, you know you have to rely on your co-workers, and you can work out plans that can fit everyone's needs."

Wright's an example of that. A 20-year veteran of IT, she led a team of IT workers that logged the highest number of average steps in the Northeast division in the company's most recent eight-week Eat Well Live Well challenge. Wright says she started wearing a pedometer when she first began participating in the company's wellness program.

"I was surprised to learn that I didn't even walk 2,000 [steps]. Now, on a normal day I can get 10,000," she says, attributing the improvement to both little changes like taking the stairs instead of the elevator and using the company's outdoor walking track. She even walks around her office as she talks on the phone.

Wright, who has lost 40 pounds and lowered her blood sugar, says she has seen changes in some managers. She says at least one is likely to suggest walking the track while meeting with others.

Indeed, workers, wellness program administrators and IT leaders themselves agree that the best way to get techies to participate in a company's fitness regimens is to make them part of the department's culture.

"It often comes down to breaking down the barriers as to why people aren't doing it on their own," explains Debbi Brooks, employee wellness program expert at Health Care Service Corp. (HCSC), a Chicago-based health insurer. Companies need to make it convenient for workers, offer incentives and find the programs that appeal to particular groups and individuals.

Brooks says that IT workers tend to "feed off each other and cheer each other on," so they like to exercise together and compare results. And they like their tech toys, so smartphone apps and social networking tools that let them track fitness progress have been popular too. And considering the demanding hours that IT often works, flexibility is key.

> **If you work in a stressful kind of environment like IT,** you know you have to rely on your co-workers and you can work out plans that can fit everyone's needs.
>
> **LAURIE WRIGHT,**
> DATABASE ADMINISTRATOR, PAYCHEX INC.

Telecommunications analyst Tom Walsh says HCSC's commitment to flexibility enabled him to participate in a 10-week nutrition and wellness program that the company offered.

"Having it at work made it much easier to be part of it," he says.

As did his manager's support, Walsh says. His manager adjusted his start time by a half-hour to accommodate morning workouts.

The ROI was impressive: Walsh lost 60 pounds, he was able to stop taking his blood pressure medicine, and he might be able to drop his cholesterol and diabetes medications as well. ◆

Pratt *is a* Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*

Permission To **Recline**

The market for ergonomic products has introduced some healthier alternatives to the traditional desk. There's the desk that lets you stand up. There's also a treadmill desk, which, as you can imagine, allows you to walk while you work.

But Tom Revelle, vice president of marketing at Humanscale, which designs and manufacturers ergonomic tools in New York, says the best desk is one that adjusts to your individual needs so you can maintain the best posture possible throughout the day.

That doesn't mean you should be sitting ram-rod straight at your desk. Rather, you want to be reclining slightly in your chair, so that the chair takes some weight off of your back, he says.

To do that, try the following:

- **Move the keyboard off your desktop;** instead, put it on an adjustable shelf below the desktop, or put it in your lap.
- **Get a good ergonomic chair that allows you to lean back and adjust the tension on the back support.** (It should be adjustable for height, too.)
- **Move your monitor up to the front of your desk when you're working on the computer,** and move it back when you need desk space, so you're not leaning forward to see the screen.
- **Get some really good task lighting for your work area.**

If you can make the adjustments outlined here and get up and move throughout the day, that desk job won't be such a pain.

– MARY K. PRATT

© FOTOLIA / JAMES STEIDL

Salesmanship Pays Off *for IT*

A **Pepsi bottler** *wins over users to unified communications with* **'whiz-bang' technology** *and a little* **salesmanship.**

BY MATT HAMBLEN

UNIFIED COMMUNICATIONS systems haven't caught on as much as expected, and even though IT managers report some solid productivity benefits, rolling out such new technologies may require IT to engage in a bit of salesmanship with end users.

A case in point is a $1 million unified communications and voice-over-IP rollout at Raleigh, N.C.-based Pepsi Bottling Ventures — an initiative started in 2009 that has affected 3,000 employees at 30 locations.

"In a project like this, you implement the UC technology pieces, of course, but you have to put on the marketing hat and drum up excitement," says Pepsi Bottling's director of technology, Tommy Alexander, who began overseeing the project at its inception in 2009. "A bit of salesmanship is involved for sure" to get full end-user participation, he adds. "To get the benefit out of a UC system requires full participation."

The bottler and its systems integrator, Dimension Data, even created a marketing campaign to let end users know that something big was coming. The campaign used the slogan "A new flavor of communication," which Alexander says helped "build up some suspense" for the unified communications rollout.

Most end users don't understand what unified communications systems are, much less the benefits they offer, which is why some marketing from IT was needed.

"Generally speaking, UC is still not understood very well by many end users today — ranging from CEOs on down," notes Rich Costello, an analyst at IDC. "On the positive side, there is obviously more understanding about UC technology and applications among the IT and telecom types who are charged with assessing, implementing and explaining it to the employees, like Mr. Alexander. This situation certainly makes the challenge to educate tough for IT people, both from the 'how to use it' and 'how can we justify it' perspectives."

For Pepsi Bottling Ventures, Dimension Data implemented VoIP technologies from Cisco along with Microsoft's Office Communications Server.

At a Glance

ORGANIZATION: Pepsi Bottling Ventures in Raleigh, N.C., is the largest privately held manufacturer and distributor of Pepsi-Cola drinks in the U.S., with 30 locations and 3,000 employees.

PROJECT CHAMPION: Tommy Alexander, director of technology. The team included head engineer Brad Gruesbeck (who has since joined Cisco) and Jason Lempka, systems administration manager.

SIZE OF IT DEPARTMENT: 37

PROJECT PAYBACK: Collaboration and productivity improvements for workers in all 30 locations, with a doubling of videoconferencing users in the past year. Alexander says he doesn't have a hard ROI number to share.

The particular unified communications technologies that Pepsi Bottling Ventures deployed include instant messaging, a click-to-dial system, desktop videoconferencing and unified voice-mail capabilities.

Keeping Connected

The new tools are winning praise from end users for improving worker efficiency, Alexander says.

Click-to-dial benefited the company as a whole because it did away with the need to maintain corporate directories. But Alexander says the IM system has probably been the biggest hit among end users because it offers "presence" information about colleagues.

"Being able to see now whether a colleague in Idaho is actively online or is away from his desk and plans on being back in two hours is a big thing," he says. "As we were growing bigger as a company, it allowed us to stay in touch."

Having acquired in recent years four smaller independent Pepsi bottlers in locations as far apart as Idaho, Nevada and New York, the company began looking for ways to centrally manage communications across its 30 sites.

Generally speaking, **UC is still not understood very well by many end users today** *— ranging from CEOs on down.*

RICH COSTELLO, ANALYST, IDC

"Support and maintenance were quite challenging as we were continuing to grow," Alexander says.

He says the company wanted to use VoIP technology to connect new sites, partly to reduce long-distance calling fees. It also replaced an older frame-relay network with an MPLS (Multiprotocol Label Switching) cloud to increase bandwidth. But the carriers' long-distance calling prices are already low, so "it was pretty challenging to justify the project on long-distance savings," Alexander notes.

This year, major savings are expected from installing SIP (Session Initiation Protocol) trunking at all 30 locations, but in the meantime, the various unified communications applications have been deployed to improve worker productivity.

"Implementing UC allowed us to put something in front of end users with real pull," Alexander says.

For example, the company's mobile salespeople appreciate the fact that they can now get voice-mail messages from their office phones on their BlackBerry devices.

"A little thing like that was perceived as a big win," Alexander says. "They thought that was awesome, and I hadn't really thought it was going to be a benefit."

Presence information has also proved to be very valuable. "When I was training end users and demonstrating IM for those who never had it, one person asked how IM is different from e-mail," Alexander says. "I spent time thinking about that question, and what strikes me is that if I send an e-mail, I don't know if a colleague would get back to me in two minutes or tomorrow, but with IM, you have real-time feedback and the intelligence to make decisions."

The value of that real-time feedback is demonstrated by the fact that workers who once had to walk the length of a large bottling plant to get answers to questions can now use instant messaging to ask a question, Alexander says. "It's changed the way people make decisions, and that power becomes more powerful with bigger numbers of users."

About 200 employees use videoconferencing, up from 100 a year ago, and videoconferencing systems will continue to be rolled out to additional workers who would benefit from them, he says.

"People like the sense of connectedness," Alexander notes. "Connectedness with some of these features has helped drive adoption. I call those features whiz-bang, and maybe [a feature doesn't have] fundamental practical value, but whiz-bang features create a draw and user adoption."

In other words, IT is acting like a marketing team.

Most companies find that personal productivity gains are the chief benefit of UC, unless they are saving money on international phone calls with VoIP, Costello says. "We see mostly soft ROI benefits associated with UC, personal productivity gains or enhanced collaboration, which are difficult to measure in hard cost savings," he notes.

Alexander's and Dimension Data's promotion at Pepsi Bottling Ventures is the type of campaign that should be a best practice for any organization planning a UC upgrade. Costello says that such initiatives should include some details about pending changes to help win over employees who might not understand the technology at all. ◆

Security Manager's Journal

MATHIAS THURMAN

Stopping Stupid Human Tricks

The company's widespread use of SaaS apps makes raising employees' awareness of security risks essential.

AS I'VE MENTIONED, my new company likes to use SaaS for many of its corporate applications. This tends to keep me up at night. The software-as-a-service market is still in its infancy when it comes to security and interoperability with other vendors' security implementations and technologies.

What worries me are applications that contain sensitive corporate information. I'm not too concerned about HR using a SaaS application with a discount brokerage firm, and applications that employees use to access their flexible spending plans or to book travel don't really bother me. But when our finance team uses the cloud to calculate and maintain our quarterly earnings, I get nervous. I feel the same way when our sales team uses a SaaS application to register sales deals, maintain customer contacts and conduct negotiations. And I get downright apoplectic thinking about an online application for determining whether a merger or acquisition makes sense.

I have to wonder whether the people who use such applications are knowledgeable about the risks they create for our sensitive data. The reason I worry so much is that I know from experience that most people do not have adequate knowledge about simple security precautions. They opt for convenience, checking off the box that promises to remember their username and password. They use random, unsecured computers to log into SaaS applications — even, as I've noted before, doing it from an Internet kiosk in Moscow. And as if to demonstrate that they don't see that as particularly risky, they will walk away from that kiosk with the computer still logged into their account, or they will download an important document and leave it on the computer.

JOIN IN the discussions about security! **computerworld.com/blogs/security**

Clearly, I have a duty to educate these people. They need to be aware that such actions can lead to things like a compromise of a SaaS application's administrative portal, with the potential for disastrous consequences. I do not want to crack down *after* someone has gotten into our network and done things like adding or removing accounts, manipulating data or even deleting data.

> **What worries me are SaaS applications that contain sensitive corporate information.**

Trouble Ticket

» **At issue:** It would be dangerous to assume that all users are fully cognizant of the risks associated with using SaaS applications.

» **Action plan:** Set up a security awareness training program, and make sure all new employees are exposed to the material.

That's why I've decided to make my information security training and awareness program a priority. The main goal is simple: to change employees' behavior. If I can drill basic security awareness into each employee, I will reduce the risk that arises from employees doing stupid things.

Raising Consciousness

Besides the things I mentioned above, the training will address common risks associated with mobile devices, social media, phishing scams, unpatched systems, Wi-Fi access and "shoulder surfing," as well as some more far-out topics. I might demonstrate for them how easy it is to install keystroke loggers and explain such seemingly esoteric risks as using a GPS-enabled phone to visit a social media site and post images that have location data embedded in them.

I also want infosec awareness guidelines to become part of the materials given to all new hires. And I'm doing ongoing education with things like an "infosec tip of the day" RSS feed, courtesy of the SANS Institute. I will fill in the gaps with some training visits to remote offices, brown-bag lunch sessions, posters and e-mail announcements of relevant security alerts.

A security-awareness training program has the potential to give you great results at a fairly low cost, but the best part might be that those visits to remote branches will get me out of the office. And we just opened a large branch in Australia! ◆

This week's journal is written by a real security manager, **"Mathias Thurman,"** *whose name and employer have been disguised for obvious reasons. Contact him at mathias_thurman@yahoo.com.*

At a Glance

ORGANIZATION: **Pepsi Bottling Ventures** in Raleigh, N.C., is the largest privately held manufacturer and distributor of Pepsi-Cola drinks in the U.S., with 30 locations and 3,000 employees.

PROJECT CHAMPION: **Tommy Alexander,** director of technology. The team included head engineer Brad Gruesbeck (who has since joined Cisco) and Jason Lempka, systems administration manager.

SIZE OF IT DEPARTMENT: **37**

PROJECT PAYBACK: **Collaboration and productivity improvements** for workers in all 30 locations, with a doubling of videoconferencing users in the past year. Alexander says he doesn't have a hard ROI number to share.

The particular unified communications technologies that Pepsi Bottling Ventures deployed include instant messaging, a click-to-dial system, desktop videoconferencing and unified voice-mail capabilities.

Keeping Connected

The new tools are winning praise from end users for improving worker efficiency, Alexander says.

Click-to-dial benefited the company as a whole because it did away with the need to maintain corporate directories. But Alexander says the IM system has probably been the biggest hit among end users because it offers "presence" information about colleagues.

"Being able to see now whether a colleague in Idaho is actively online or is away from his desk and plans on being back in two hours is a big thing," he says. "As we were growing bigger as a company, it allowed us to stay in touch."

Having acquired in recent years four smaller independent Pepsi bottlers in locations as far apart as Idaho, Nevada and New York, the company began looking for ways to centrally manage communications across its 30 sites.

> Generally speaking, UC is still not understood very well by many end users today — ranging from CEOs on down.
>
> RICH COSTELLO,

"Support and maintenance were quite challenging as we were continuing to grow," Alexander says.

He says the company wanted to use VoIP technology to connect new sites, partly to reduce long-distance calling fees. It also replaced an older frame-relay network with an MPLS (Multiprotocol Label Switching) cloud to increase bandwidth. But the carriers' long-distance calling prices are already low, so "it was pretty challenging to justify the project on long-distance savings," Alexander notes.

This year, major savings are expected from installing SIP (Session Initiation Protocol) trunking at all 30 locations, but in the meantime, the various unified communications applications have been deployed to improve worker productivity.

"Implementing UC allowed us to put something in front of end users with real pull," Alexander says.

For example, the company's mobile salespeople appreciate the fact that they can now get voice-mail messages from their office phones on their BlackBerry devices.

"A little thing like that was perceived as a big win," Alexander says. "They thought that was awesome, and I hadn't really thought it was going to be a benefit."

Presence information has also proved to be very valuable. "When I was training end users and demonstrating IM for those who never had it, one person asked how IM is different from e-mail," Alexander says. "I spent time thinking about that question, and what strikes me is that if I send an e-mail, I don't know if a colleague would get back to me in two minutes or tomorrow, but with IM, you have real-time feedback and the intelligence to make decisions."

The value of that real-time feedback is demonstrated by the fact that workers who once had to walk the length of a large bottling plant to get answers to questions can now use instant messaging to ask a question, Alexander says. "It's changed the way people make decisions, and that power becomes more powerful with bigger numbers of users."

About 200 employees use videoconferencing, up from 100 a year ago, and videoconferencing systems will continue to be rolled out to additional workers who would benefit from them, he says.

"People like the sense of connectedness," Alexander notes. "Connectedness with some of these features has helped drive adoption. I call those features whiz-bang, and maybe [a feature doesn't have] fundamental practical value, but whiz-bang features create a draw and user adoption."

In other words, IT is acting like a marketing team.

Most companies find that personal productivity gains are the chief benefit of UC, unless they are saving money on international phone calls with VoIP, Costello says. "We see mostly soft ROI benefits associated with UC, personal productivity gains or enhanced collaboration, which are difficult to measure in hard cost savings," he notes.

Alexander's and Dimension Data's promotion at Pepsi Bottling Ventures is the type of campaign that should be a best practice for any organization planning a UC upgrade. Costello says that such initiatives should include some details about pending changes to help win over employees who might not understand the technology at all. ◆

Security Manager's Journal

MATHIAS THURMAN

Stopping Stupid Human Tricks

AS I'VE MENTIONED, my new company likes to use SaaS for many of its corporate applications. This tends to keep me up at night. The software-as-a-service market is still in its infancy when it comes to security and interoperability with other vendors' security implementations and technologies.

What worries me are applications that contain sensitive corporate information. I'm not too concerned about HR using a SaaS application with a discount brokerage firm, and applications that employees use to access their flexible spending plans or to book travel don't really bother me. But when our finance team uses the cloud to calculate and maintain our quarterly earnings, I get nervous. I feel the same way when our sales team uses a SaaS application to register sales deals, maintain customer contacts and conduct negotiations. And I get downright apoplectic thinking about an online application for determining whether a merger or acquisition makes sense.

I have to wonder whether the people who use such applications are knowledgeable about the risks they create for our sensitive data. The reason I worry so much is that I know from experience that most people do not have adequate knowledge about simple security precautions. They opt for convenience, checking off the box that promises to remember their username and password. They use random, unsecured computers to log into SaaS applications — even, as I've noted before, doing it from an Internet kiosk in Moscow. And as if to demonstrate that they don't see that as particularly risky, they will walk away from that kiosk with the computer still logged into their account, or they will download an important document and leave it on the computer.

JOIN IN the discussions about security! **computerworld.com/blogs/security**

Clearly, I have a duty to educate these people. They need to be aware that such actions can lead to things like a compromise of a SaaS application's administrative portal, with the potential for disastrous consequences. I do not want to crack down *after* someone has gotten into our network and done things like adding or removing accounts, manipulating data or even deleting data.

What worries me are SaaS applications that contain sensitive corporate information.

Trouble Ticket

» **At issue:** It would be dangerous to assume that all users are fully cognizant of the risks associated with using SaaS applications.

» **Action plan:** Set up a security awareness training program, and make sure all new employees are exposed to the material.

That's why I've decided to make my information security training and awareness program a priority. The main goal is simple: to change employees' behavior. If I can drill basic security awareness into each employee, I will reduce the risk that arises from employees doing stupid things.

Raising Consciousness

Besides the things I mentioned above, the training will address common risks associated with mobile devices, social media, phishing scams, unpatched systems, Wi-Fi access and "shoulder surfing," as well as some more far-out topics. I might demonstrate for them how easy it is to install keystroke loggers and explain such seemingly esoteric risks as using a GPS-enabled phone to visit a social media site and post images that have location data embedded in them.

I also want infosec awareness guidelines to become part of the materials given to all new hires. And I'm doing ongoing education with things like an "infosec tip of the day" RSS feed, courtesy of the SANS Institute. I will fill in the gaps with some training visits to remote offices, brown-bag lunch sessions, posters and e-mail announcements of relevant security alerts.

A security-awareness training program has the potential to give you great results at a fairly low cost, but the best part might be that those visits to remote branches will get me out of the office. And we just opened a large branch in Australia! ◆

This week's journal is written by a real security manager, **"Mathias Thurman,"** *whose name and employer have been disguised for obvious reasons. Contact him at mathias_thurman@yahoo.com.*

THORNTON A. MAY

Peering at the New World of IT Work

The vast majority of executives have never pictured themselves becoming the boss. What does that tell us?

HERE'S A DOG-THAT-DIDN'T-BARK SITUATION: As part of a frenzy of end-of-year poll-taking and interviewing, I asked hundreds of executives around the country what they would do if they suddenly found themselves the boss, going from being the CIO to being the CEO, or from being an IT director to being the CIO. I received some very interesting responses, but even more interesting was this: The vast majority had never asked themselves this question. They had not pictured themselves becoming the boss. What does this tell us about the new IT workplace?

I looked at the implications of this finding through four lenses: transformational, generational, situational and operational.

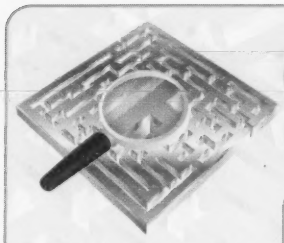
■ **The transformational lens.** Is the traditional concept of hierarchy outdated? It's not an outré thought. Thomas W. Malone of MIT has said something similar in his book *The Future of Work*. A key premise of coordination theory, he explains, holds that increasingly powerful, portable and affordable information technologies are taking us "across a threshold into a place where dramatically more decentralized ways of organizing work become at once possible and desirable." Evidence abounds that technology is reshaping contemporary culture and work.

■ **The generational lens.** Today's high school students are digital natives. They seem to be developing a "connect and contribute" mental model of success that could flatten hierarchies and make moot the question of who the boss is. At the same time, digital tools hold great meaning for these millennials. Google CEO Eric Schmidt said in an August interview with *The Wall Street Journal*, "I actually think most people don't want Google to answer their questions. They want Google to tell them what they should be doing next." This suggests that we are on the cusp of a generation that lets the tools tell them where they should go.

■ **The situational lens.** At what is possibly a pivotal moment in history, America is a nation hypersensitized to any indication of national decline. Any malfunction — whether one as dire as a catastrophic oil spill or as nonthreatening as a broken shoelace — is viewed as a sign of our sad, slow slide into the abyss. According to a recent NBC/*Wall Street Journal* poll, 65% of Americans believe the nation is now in decline. Seen in this sinister light, the failure of so many to even contemplate upward career mobility could be a reflection of a widely shared perception that it is unachievable. Is the American dream dead for these people? Are they so estranged from the purposes and mission of the enterprise that they just don't care what happens at the level above them? Jonathan Franzen's currently best-selling novel *Freedom* portrays American middle-class life as filled with unhappy and spiritually stunted people. Have we regressed to the *Mad Men* milieu of the late 1950s, with external bravado masking internal angst?

■ **The operational lens.** The view is more optimistic through this one, with all of us capable of being the empowered CEO of our own destiny. With a smartphone and an Internet connection, there is nothing we cannot know. Yes, there remain swaths of humanity still stuck in the pre-digital world. And yes, in IT there seems to be a disproportionate percentage of bad bosses. But technology gives one the power to act. The digital tools at your disposal are the pens with which you can write the next chapter of your career adventure. ◆

Thornton A. May is the author of *The New Know: Innovation Powered by Analytics* and executive director of the IT Leadership Academy at Florida State College at Jacksonville. You can contact him at thorntonamay@aol.com.



dtSearch®

The Smart Choice for Text Retrieval® since 1991

Instantly Search Terabytes of Text

Highlights hits in a wide range of data, using dtSearch's *own* file parsers and converters

- Supports MS Office through 2010 (Word, Excel, PowerPoint, Access), OpenOffice, ZIP, HTML, XML/XSL, PDF and more
- Supports Exchange, Outlook, Thunderbird and other popular email types, including nested and ZIP attachments
- Spider supports static and dynamic web data like ASP.NET, MS SharePoint, CMS, PHP, etc.
- API for SQL-type data, including BLOB data

25+ full-text and fielded data search options

- Federated searching
- Special forensics search options
- Advanced data classification objects

APIs for C++, Java and .NET through 4.x

- Native 64-bit and 32-bit Win / Linux APIs; .NET Spider API
- Content extraction only licenses available

Desktop with Spider

Network with Spider

Publish (portable media)

Web with Spider

Engine for Win & .NET

Engine for Linux

Ask about fully-functional evaluations!

"With dtSearch: "Endless indexing is now a breeze" *Computerworld*

"Impressive searching power ... handles more than a terabyte of text in a single index" *Network World*

"Lightning fast ... performance was unmatched by any other product" *Redmond Magazine*

For hundreds more reviews and developer case studies, see www.dtSearch.com

www.dtSearch.com • 1-800-IT-FINDS

Personalized IT newsletters from Tech Dispenser.

You pick the topics. You pick the sources. You pick the frequency.

Build your own newsletter featuring your favorite technology topics — cloud computing, application development, security — over 200 timely topics, from more than 700 trusted sources.

Get started today. It's free.
www.techdispenser.com

TECH DISPENSER

Disturbingly personal newsletters

Career Watch

IT Jobs Down

Janco Associates took a look at the latest data from the U.S. Bureau of Labor Statistics and found that the **total employment of IT professionals fell 0.66%** in the third quarter of 2010 compared to a year earlier.

SEASONALLY ADJUSTED EMPLOYMENT
(in thousands)

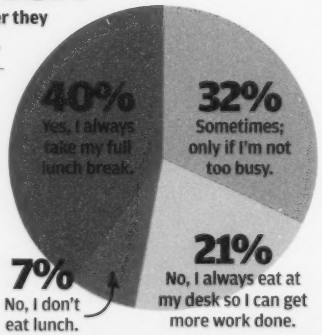
	SEPTEMBER 2009	SEPTEMBER 2010	% CHANGE
Telecommunications	967	914	-5.43%
Data processing, hosting and related services	250	244	-2.52%
Other information services	134	142	5.51%
Computer systems design and related services	1,426	1,459	2.33%
TOTAL	2,777	2,758	-0.66%

© FOTOLIA / DURIS GUILLAUME

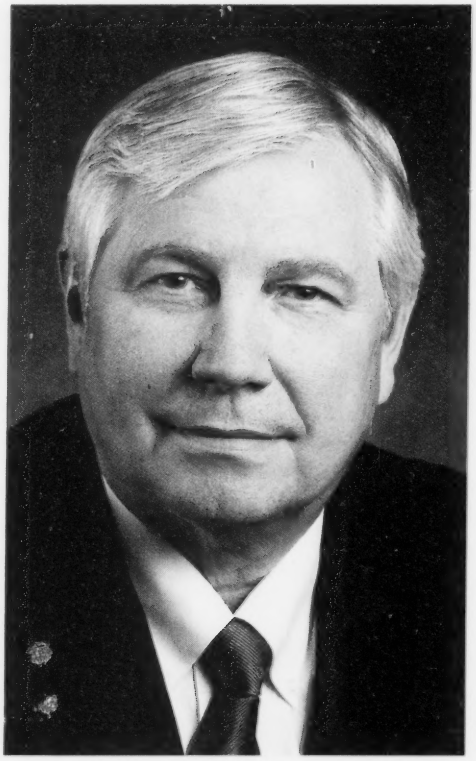
LUNCH CRUNCH

Workers worldwide were asked whether they take a full lunch break while on the job.

U.S. workers fall below the worldwide average when it comes to taking a full lunch break; just 30% said they do so, compared with 40% worldwide. Nearly as many U.S. workers (29%) said they eat at their desks so they can keep working. The biggest fans of taking a full lunch break are in France (58%), and in Italy and India (48% each). But the nation where workers are least likely to take a full lunch is Spain, where 15% said they don't break for lunch at all.


40%
Yes, I always take my full lunch break.
32%
Sometimes; only if I'm not too busy.
21%
No, I always eat at my desk so I can get more work done.
7%
No, I don't eat lunch.

SOURCE: MONSTER.COM WORLDWIDE ONLINE SURVEY, Q4 2010



Q&A

Al Switzler

The co-author of **Crucial Conversations** *and* **Influencer** *discusses new research that debunks the myth that it's jerks who get promoted.*

Do you have to be a jerk to get ahead in the corporate world? First, for these purposes, we'll define a jerk as someone who acts in ways that demonstrate that he or she values results over relationships and is willing to ride roughshod over others to obtain those results. A long tradition exists of viewing leaders this way. These leaders tend to act as dictators, give little praise to others and listen poorly.

A number of years ago, I heard of a manager at a large global company who fell under this stereotype. The day following his promotion, he stood in front of his extended team of 45 employees and said, "My current role is just a pit stop on my way to corporate. So, you people do your job, stay off my radar screen, and we'll get along just fine." Over the next 18 months, he acted exactly that way. Results mattered – relationships did not. While these leaders do receive promotions, a recent study that my colleagues and I conducted shows that jerks are promoted in

spite of, rather than because of, their poor interpersonal skills. According to the online poll, which analyzed 1,650 promotions, 92% said having poor interpersonal skills hinders advancement in their organization.

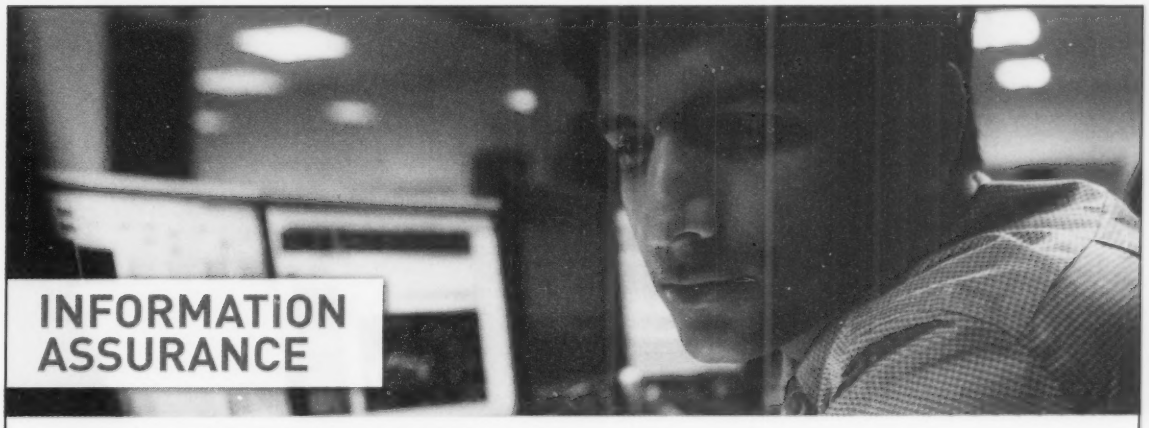
Why do so many people believe that it's the self-promoters who do best in the workplace? The key to success in business is to produce results while maintaining relationships. Self-promoters produce results, a main benchmark for promotion, at the cost of relationships. When a manager is faced with the decision to advance a self-promoter or an employee who values relationships over results, the manager will most likely choose the employee who produces strong results.

However, our research reveals that the combination of strong interpersonal skills and strong results are by far the best predictor of whether an employee will be respected as a leader after a promotion. Leaders who lack interpersonal skills are not respected by their employees, and a disrespected leader wields little true influence in the workplace. Thus, employees who place high value on both results and relationships are most likely to excel and exert influence in their company.

If I'm a jerk, how can I change? How do I even recognize the need to change? It can be difficult for a person to recognize the need to change, because co-workers are often reticent to give honest feedback. It takes a great deal of humility to ask co-workers for feedback and to *truly* listen. First, I suggest you do a self-assessment of both your technical and interpersonal skills. Then, find someone who will give you honest feedback, and listen. If after your assessment you discover you need to change, follow these four steps for navigating crucial conversations – high-stakes, politically risky or emotionally volatile situations – in a way that generates results and improves relationships.

1. **Change your emotions.** In stressful moments, separate people from the problem. Try to see others as reasonable, rational and decent human beings – even if your opinions clash. Jerks don't bother with this principle – they make harsh judgments of others and act out those judgments through mistreatment.
2. **Help others feel safe.** Jerks disguise their harshness as brutal honesty. In contrast, effective leaders find a way to be both 100% honest and 100% respectful. They do both by starting high-stakes conversations by assuring the other person of their positive intentions and their respect. When others feel respected and trust your motives, they let their guard down and begin to listen – even if the topic is unpleasant.
3. **Present just the facts.** Respected leaders describe problems in factual terms – stripping out the negative labels and punitive conclusions commonly used by jerks. Without the facts, judgmental statements are far from motivating and create animosity and resistance.
4. **Invite dialogue.** Effective leaders create dialogue, while jerks settle for monologue. After confidently sharing your views, invite others to do so as well. If you are open to hearing others' points of view, they'll be more open to yours.

– JAMIE ECKLE



**DEFEND NETWORKS AND INFORMATION.
IMPRESS POTENTIAL EMPLOYERS.**

Preventing data theft. Reassuring customers. Complying with federal regulations. Just some of the reasons why securing information is such a high priority for employers. Seize your opportunity, with a certificate or a master's degree from University of Maryland University College (UMUC). Whether you're a manager or an IT professional, you'll learn how to protect systems and information against deliberate attacks or accidental damage.

- Designated as a National Center of Academic Excellence in Information Assurance Education by the NSA and the DHS
- Recognized as a Professional Science Master's by the Council of Graduate Schools
- Scholarships, loans and an interest-free monthly payment plan available
- Program is offered entirely online

UMUC
University of Maryland University College
Copyright © 2011 University of Maryland University College

Enroll now.

800-888-UMUC • umuc.edu/mychallenge

IT|careers

Planet Data

The ICT project PlanetData has vacancies in the consortium for partners having comprehensive research and technological expertise in the area of "Consuming Linked Data".

Specific topics in the thematic area
We solicit proposals for research projects with a focus on demonstration of developed technologies in a concrete application context making use of publically available Linked Data sets. Relevant topics include but are not limited to Web-scale data management, searching and querying, reasoning, Linked Sensor Data, quality assessment and data curation, analytics and mining, front-ends and visualization, as well as business and incentives models for data-driven services and applications. Submissions should demonstrate the applicability of their research results with an application that consumes data from the open Web, ideally of societal value, including, but not limited to the following domains: public sector information and statistical data, bibliographic and media sector information, life sciences, Earth science and environmental data, geospatial data, as well as transportation and urban management.
Facts and figures
Call open: The call will be open for submissions from 1st January 2011
Deadline for submission of proposals: 16th February 2011; 17h00 Brussels time
Expected duration of participation in project: 4 to 12 months, starting earliest in June 2011.
Proposal format: proposals can include one or more organizations eligible for EU funding, and should have an indicative funding between €15,000 and €100,000.
Call identifier: PD-1-2011.
Language in which proposal should be submitted: English.
Web address for further information (full call text/proposal guidelines):www.planet-data.eu
Email address for further information: alice.carpentier@sti2.at

IT Project Managers & Programmer-Analyst needed at unanticipated clients sites w/exp using J2EE; Oracle, C, C++ & UNIX; or Solaris & UNIX. Mail resume to: Collabera, Attn: Hireme, 25 Airport Rd, Morristown, NJ 07960.

Research In Motion Corporation (US), Redwood City, CA, positions are avail:
Technical Account Mgr – CA4028
Project Mgr – CA4035
Software Quality Assurance Specialist – CA4026
Software Developer – CA4038
Research In Motion Corporation (US), San Diego, CA, positions are avail:
Software Developer – CA4029
Research In Motion Corporation (US), Sunrise, FL, positions are avail:
Carrier Group Mgr – FL4027
Software Developer – FL4037
Project Manager – Carrier Product Mgmt – FL4042
Software Developer – FL4046
Research In Motion Corporation (US), Bellevue, WA, positions are avail:
Carrier Technical Mgr – WA4030
Software Developer – WA4041
Software Test Specialist – WA4050
Submit resume to Research In Motion Corporation (US), to P.O. Box 141394, Irving, TX, 75014-1394 ref appropriate job title & req number.

With 49 branch offices located across the US, COMSYS is actively recruiting for the following positions.
Software Engineer – metro Englewood, CO – Code # EN100
QA Engineer – metro Washington, DC– Code # WA310
DBA – metro Washington, DC – Code # WA300
Systems Administrator – metro Washington, DC – Code # WA290
Programmer Analyst – metro New York, NY – Code # 10013
Roving employment to varying jobsites throughout the US. Please refer to appropriate job code when submitting resume to: COMSYS, Attn. Nancy Theriault, 15455 N. Dallas Pkwy., Ste 300, Addison, TX 75001. EOE./MF/DV

Research In Motion Corporation (US), Rolling Meadows, IL, positions are avail:
Radio Frequency Designer – IL4032
Software Testing Specialist – IL4033
Product Mgr – IL4039
Software Test Specialist – IL4040
Electrical Engineering Designer – IL4044
Research In Motion Corporation (US), Irving, TX, positions are avail: Inter Operability Testing Specialist– TX4028
Radio Frequency Designer – TX4031
Software Developer – TX4034
Research In Motion Corporation (US), Alpharetta, GA, positions are avail: Partner Support Account Mgr– GA4048
Automated Configuration & Inventory Services System Engineering Specialist – GA4049
Submit resume to Research In Motion Corporation (US), to P.O. Box 141394, Irving, TX, 75014-1394 ref appropriate job title & req number.

Lead Analyst [Greenwood Village, CO] Public pension management application design & development in Denver metro. Require Bachelor's or equivalent combination of degrees in Computer Science, MIS, Electronic Eng with 2 years experience in software engineer or programmer-analyst. Experience should include .Net, C#, ASP.Net, SQL Server, Crystal Report, migration of database. Send salary requirement & application to HR Chief, Sagitec Solutions, LLC, 422 County Rd D East, Little Canada, MN 55117.

Evista Corporation seeks system analyst to customize applications using skills per project requirements. Must have at least Master's Degree with 2 yrs exp. Travel may be req. Apply at Evista Corporation, 1333 Corporate Drive, Ste. 315, Irving, Texas 75038.

IT Engineer needed for Apollo Group located in Seattle, WA. Engage in analysis, design and development of JAVA/J2EE applications. Will use, Spring, Hibernate, AJAX, and JBOSS. Applicant must have a M.S. degree in computer science or related and 1 yr. of exp. in the skills listed above. Competitive salary. Send resumes to: apoljobs@apollogrp.edu

Systems Analyst, Falls Church, VA & other client locations: Analyze, design, develop, implement, & customize application & system based on user needs using J2EE, EJB, JMS, JCE, Struts, Spring, MVC, Hibernate, SQA. Oracle 10g, DB2, Weblogic, Websphere, JBoss, Crystal Reports, Erwin, Rational Rose, Toad, Java Script, Unix, Linux, & Win XP/2000/2003. BS in CS, CIS, MIS, Eng (any), Math, or related W/5yr exp. Salary DOE. Email: hr@aarisha.com or mail Aarisha, 900 S. Washington St, Ste212, Falls Church, VA 22046.

SAP Systems Administrator (Atlanta, GA opening, may relocate to unanticipated locations across the country per contract demand): Participate in SAP Implementations, Maintenance, Configuration and Integration. Fax Resume to President, Omnisoft, Inc. at 770-234-5756.

Senior Software Engineer (Alpharetta, GA, but will relocate to unanticipated cities across the country per contract demand): Develop, design, and analyze software applications and interfaces using several AS/400 specific programming languages. Send resume to HR Manager, Panacea Systems, Inc. at hr@pansysinc.com

Ascendent Telecommunications, Inc., Redwood City, CA, positions are available:
Software Engineer – CA4036
Submit resume to Research In Motion Corporation (US), P.O. Box 141394, Irving, TX, 75014-1394 ref appropriate job title & req number.

Informatica Corporation has an employment opportunity in Hillsboro, OR for Professional Services Senior Consultant (HIOR29ANE): Ensure customers are successful in deploying Informatic data integration and analytic platforms. Work with Informatica customers and business partners both on short-term assignments to provide Informatica expertise and longer-term efforts to ensure a decision support project is delivered in accordance with the customer's expectations. Send your resume (must reference job title and job code) to Informatica Corporation, Attn: M/S KM024, 100 Cardinal Way, Redwood City, CA 94063.

Aptina LLC has employment opportunity in San Jose, CA for Camera Characterization Engineer (SJ01SDA): Responsible for evaluation of Image Quality of module cameras as well as DSC/DSLR and mobile phone cameras for company's leading edge CMOS imaging sensor technology. Send your resume (must reference job title and job code) to Aptina LLC, Attn: Gloria Sanchez, 3080 North First Street, San Jose, CA 95134.

COMPUTERWORLD

Law Firms
IT Consultants
Staffing Agencies

Are you frequently placing legal or immigration advertisements?

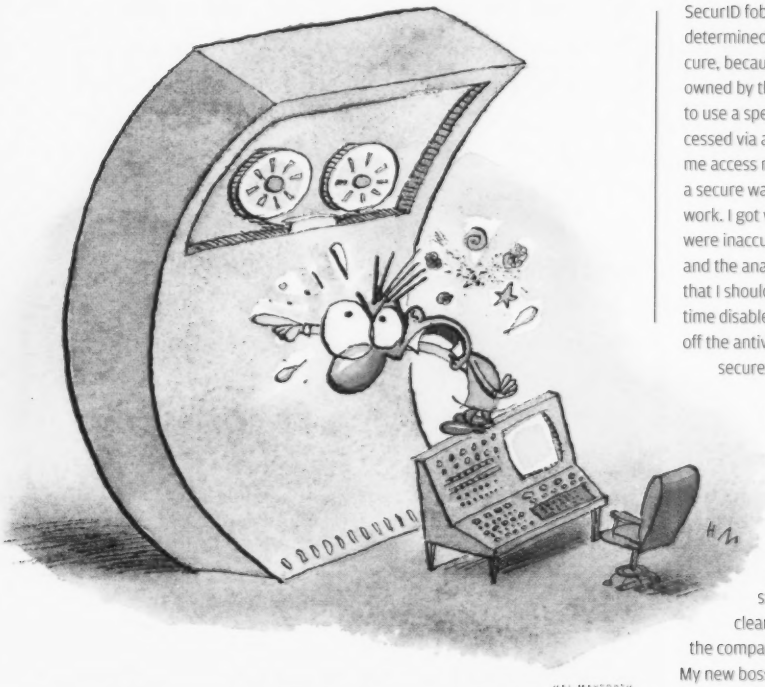
Let us help you put together a cost effective program that will make this time-consuming task a little easier.

Contact us at:
800.762.2977

IT|careers

SHARKTANK

TRUE TALES OF IT LIFE AS TOLD TO SHARKY



HAL MAYFORTH

Jersey Sore

It's 1986, and after a few days off, this IT pilot fish returns for his overnight shift at a New Jersey hospital data center – only to discover that everything is down. "This literally makes for a very quiet shift," he says. "Come to find out, one of the other operators – George, the one with anger issues – got irritated during the previous night's mainframe run of the doctors' orders and punched the console. Without its console, that mainframe's only value is to weigh the building down. The system is down for 48 hours while a new console is shipped in from Pennsylvania. A few nights later, I'm sharing a shift with George. Everything is back to normal and humming along – until something sets George off again. But instead of the console, George is staring at the front panel of the machine – the one with all the sensitive dials, switches and lights blinking away. Stabbing his index finger through the tense air, George snarls at the machine, 'You're next!' "

Feel Secure Now?

Boss wants IT pilot fish to make sure he can log in from his PC at home. "We used to be able to install a VPN client on our home machines, which allowed us to access work using our SecurID fobs," fish says. "This was determined to be insufficiently secure, because the machines weren't owned by the company. So I was told to use a special server that was accessed via a browser and would let me access my work environment in a secure way. Problem was, it didn't work. I got warning messages that were inaccurate. I wrote an IT ticket, and the analyst contacted me to say that I should try it again, but this time disable the firewall and turn off the antivirus. Talk about more secure. . . ."

Need to Know

Consultant pilot fish is hired for a confidential project. Problem: "The client can't even tell me where the work site is until I'm cleared," says fish. "And I can't get cleared until I'm signed in to the company's HR system. Solution: My new boss arranges for us to meet at one of the company's offices – not where the boss works, but convenient to both of us. New problem: They had changed the procedure to sign in visitors at this office. He could use the office whenever he wanted, but I had to cool my heels in the lobby for 45 minutes while he tracked down how to get authorization to sign me in. And why didn't my boss know this? They explained to him that they had sent out an e-mail informing everyone who worked in the building of the new procedure. But since he didn't work in that building regularly, he wasn't on the distribution list."

» **Sharky needs to know** your true tale of IT life. Send it to me at sharky@computerworld.com. You'll get a stylish Shark shirt if I use it.

CHECK OUT Sharky's blog, browse the Sharkives and sign up for home delivery at **computerworld.com/sharky**.

ADVERTISERS' INDEX

This index is provided as an additional service. The publisher does not assume any liability for errors or omissions.

1&1 Internet 10-11
1and1.com

CA Technologies C4
ca.com

CDW C3
cdw.com/unifiedcommunications

Citrix 5
gotoassist.com/computer

Dell 15
dell.com/services

Dell/Kace 27
dell.com/kace

dtSearch 35
dtsearch.com

Dynamics 13
poweredcards.com

Hewlett-Packard C1, 19
hp.com/servers/unleash5

IBM Non-Intel C2
ibm.com/engines/informationprotection

IBM Non-Intel 7
ibm.com/engines/storage

InterSystems 3
intersystems.com/advancedta

IT Roadmap Conference & Expo 23
itroadmap.net/nycad

Polycom 9
theartofconversation.com

Univerisity of Maryland 37
umuc.edu/mychallenge

BPA Periodical postage paid at Framingham, Mass., and other mailing offices. Posted under Canadian International Publication agreement PM40063731. **CANADIAN POSTMASTER:** Please return undeliverable copy to PO Box 1632, Windsor, Ontario N9A 7C9. Computerworld (ISSN 0010-4841) is published twice monthly by Computerworld Inc., 492 Old Connecticut Path, Box 9171, Framingham, Mass. 01701-9171. Copyright 2011 by Computerworld Inc. All rights reserved. Computerworld can be purchased on microfilm and microfiche through University Microfilms Inc., 300 N. Zeeb Road, Ann Arbor, Mich. 48106. Computerworld is indexed. Back issues, if available, may be purchased from the circulation department. Photocopy rights: permission to photocopy for internal or personal use is granted by Computerworld Inc. for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $3 per copy of the article, plus 50 cents per page, is paid directly to Copyright Clearance Center, 27 Congress St., Salem, Mass. 01970. Reprints (minimum 100 copies) and permission to reprint may be purchased from Ray Trynowich, Computerworld Reprints, c/o The YGS Group, Greenfield Corporate Center, 1808 Colonial Village Lane, Lancaster, Pa., 17601, (800) 290-5460, Ext. 148. Fax: (717) 399-8900. Web site: www.reprintbuyer.com. E-mail: computerworld@theygsgroup.com. Requests for missing issues will be honored only if received within 60 days of issue date. Subscription rates: $5 per copy; Annual subscription rates: – $129; Canada – $129; Central & So. America – $250; Europe – $295; all other countries – $295; digital subscription – $29. Subscriptions call toll-free (888) 559-7327. **POSTMASTER:** Send Form 3579 (Change of Address) to Computerworld, PO Box 3500, Northbrook, Ill. 60065-3500.

SCOT FINNIE

Looking Backward — and Forward to a Better Year

The tea leaves tell me this will be a much better year economically, and more exciting for both IT businesses and products.

FOR COMPUTER TECHNOLOGY, 2010 wasn't very eventful. Sure, it was the year of the iPad and all of the tablets that followed. The consumerization of IT marches on, and the advent of the tablet as a viable form factor could have far-ranging effects on enterprise technology, but last year all that trend really amounted to was just another successful Apple launch.

2010 also saw China become the country with the fastest supercomputers on Earth. And Stuxnet proved not only that worms are still relevant, but that they can be used to attack industry, which makes them a means of waging war.

With Windows 7, Microsoft showed that it can still build a reasonably good desktop operating system, garnering solid sales and adoption numbers. But the company's inability to set the world on fire with its mobile platform is an ongoing problem.

Hewlett-Packard's ouster of Mark Hurd demonstrated once again that the IT industry hasn't lost its capacity to stun and amaze onlookers.

And of course, 2010 was the year that WikiLeaks demonstrated that it's more concerned about being the news than it is about unearthing the news.

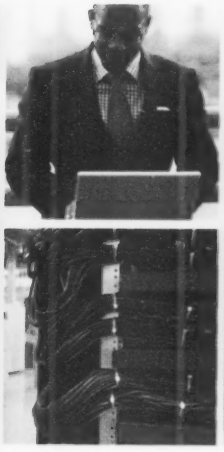
Finally, the elephant in the room: The economy didn't get worse in 2010. It even started to perk up in the fourth quarter. But, probably because of the economy, 2010 was a transitional year. There weren't a heckuva lot of IT milestones to speak of.

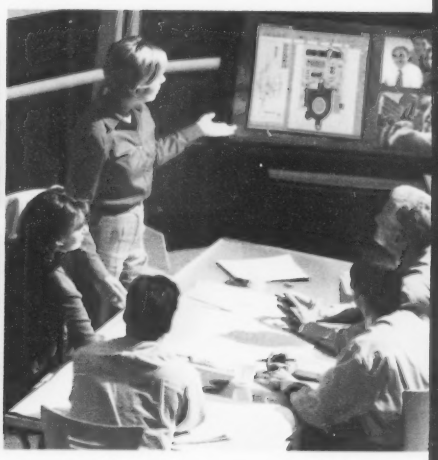
As for 2011, I'll go out on a limb. The tea leaves tell me that this will be a much better year economically, and more exciting for both IT businesses and products. Also, I expect the trend toward mergers and acquisitions to continue — that's what happens after a major recession. Most successful businesses are flush with cash, and they're ready to put that money back in play — a solid indicator that the economy is looking up. The result of this M&A activity will be new products in the marketplace: As smaller companies that have good technology but not the wherewithal to bring it to market get gobbled up, their products will finally get pushed out the door.

Many analysts are predicting that IT spending will be on the rise. Last month, IDC projected that IT spending would be 5.7% higher in 2011 than it was in 2010. Gartner and Forrester are also predicting single-digit increases. Here's my prediction: By midyear or so, the analyst firms will be adjusting their forecasts upward. There's a lot of pent-up hardware demand in enterprises. IDC accounts for that demand by projecting a 7.8% increase in hardware spending. But it's been at least a two-year span of austerity at most companies, so I wouldn't be surprised if that's a conservative number. Enterprises also have key needs in the areas of BI and analytics, mobile, cloud services, social networking, security, storage and a raft of other systems that have probably been given short shrift of late.

When economies come back, the process of the return to confidence is often an exercise in syncing up perception. It's a giant, and cautious, game of chicken as thousands of businesses (and individuals) take one small step after another back into the fray, watching closely to see whether their partners and competitors are doing the same. What I've noticed is that sometimes when the return to a healthy business environment is going to happen in a sustained way, the second half of the comeback happens seemingly overnight. That's what I think IT is in for. Happy New Year. ◆

Scot Finnie is *Computerworld*'s editor in chief. You can contact him at sfinnie@computerworld.com and follow him on Twitter (@ScotFinnie).





We can help keep your employees on the same page, even when they're not in the same place.

When workers can communicate regardless of location, it creates a whole new level of productivity. With over 80 unified communications specialists on hand, CDW can help you with everything from collaboration and unified messaging to VoIP, call center management and more. We can assess your current environment, recommend products and even design end-to-end solutions. Faster decision-making and savings on travel are just some of the benefits you can expect. Now employees can come together, no matter where they are.

Cisco® Unified IP Phone 7942G

CALL FOR PRICING

CDW 1300067

LifeSize® Passport™

$2399.99

CDW 1843614

Polycom® HDX® 7000 Series

CALL FOR PRICING

CDW 2055132

Let's talk. 800.399.4CDW | CDW.com/unifiedcommunications

Offer subject to CDW's standard terms and conditions of sale, available at CDW.com. ©2011 CDW LLC

the cloud is the answer.
it's also the question.

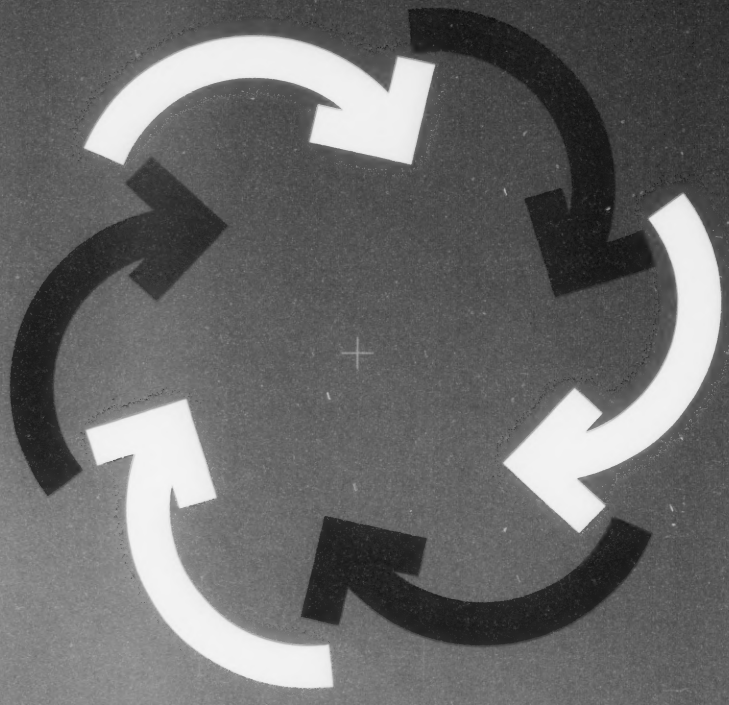
The cloud has the potential to transform business by offering faster, cheaper, on-demand access to services and resources. But it's also one of the great business questions: How much cloud? What kind? How to manage it? How to secure it? How to make it work with what I already have?

CA Technologies can help you answer those questions. Here's how: With ways to plan, implement, and monitor cloud services as part of your existing infrastructure; with ways to help you evaluate external cloud sources, and with security solutions to help manage identities, access and information.

In other words, with the solutions you're likely to need to help manage the cloud internally and externally.

Question answered.

To find out more about how our cloud technologies can work across your IT environments, visit ca.com



we **ca**n

ca technologies

Copyright © 2010 CA. All rights reserved.